

SHARP

AUDIO TOWER SYSTEM

MODEL

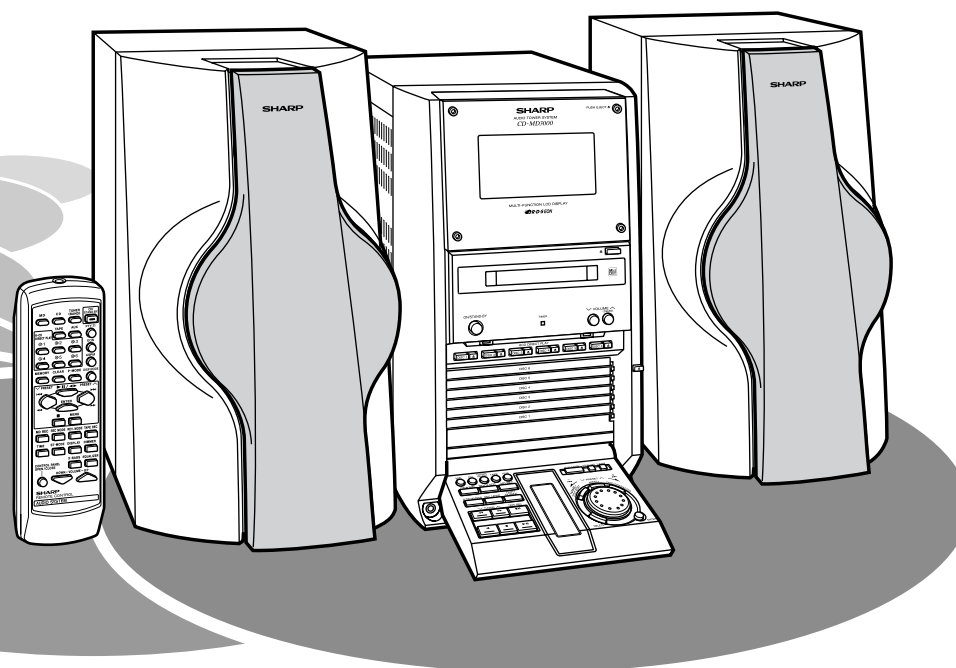
CD-MD3000H

OPERATION MANUAL

If you require any advice or assistance regarding your Sharp product, please visit our web-site www.sharp.co.uk/support. Customers without internet access may telephone 08705 274277 during office hours (or (01) 676 0648 if telephoning from Ireland).

Thank you for purchasing this SHARP product.
To obtain the best performance from this product, please read this manual carefully. It will guide you in operating your SHARP product.

CD-MD3000H Audio Tower System consisting of CD-MD3000H (main unit) and CP-RW5000H (speaker system).



COMPACT
disc
DIGITAL AUDIO

Mini
Disc



R-D-SEON

SAVING ENERGY
STAND-BY POWER
CONSUMPTION **0.6w**



Special Notes

NOTES FOR USERS IN THE U.K. AND IRELAND

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 3A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked  or  and of the same rating as above, which is also indicated on the pin face of the plug must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut-off the mains plug and fit an appropriate type.

DANGER:

The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT:

The wires in the mains lead are coloured in accordance with the following code:

Blue : Neutral

Brown : Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three pin plug.

Before replacing the plug cover, make sure that:

- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

SERVICE INFORMATION

In the unlikely event of your equipment requiring repair, please contact the dealer or supplier from whom it was purchased. Where this is not possible, please visit our web-site www.sharp.co.uk/support.

Customers without internet access may telephone 08705 274277 during office hours (or (01) 676 0648 if telephoning from Ireland).

Please note; all calls will be charged at local rate.

Certain replacement parts and accessories may be obtained from our main parts distributor.

WILLOW VALE ELECTRONICS LTD.
0121 766 5414

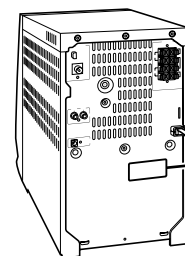
In the unlikely event of this equipment requiring repair during the guarantee period, you will need to provide proof of the date of purchase to the repairing company. Please keep your invoice or receipt, which is supplied at the time of purchase.

WARNINGS

- When the ON/STAND-BY button is set at STAND-BY position, mains voltage is still present inside the unit.
When the ON/STAND-BY button is set at STAND-BY position, the unit may be brought into operation by the timer mode or remote control.
- This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.
- To prevent fire or shock hazard, do not expose this appliance to dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.

CAUTION

- Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.



CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
PRODUCTO LASER DE CLASE 1

NOTES

- Recording and playback of any material may require consent, which SHARP is unable to give. Please refer particularly to the provisions of the Copyright Act 1956, the Dramatic and Musical Performers Protection Act 1958, the Performers Protection Acts 1963 and 1972 and to any subsequent statutory enactments and orders.
- This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.
- US and foreign patents licensed from Dolby Laboratories.



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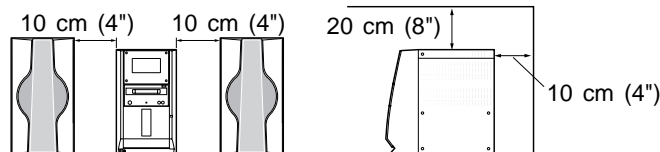
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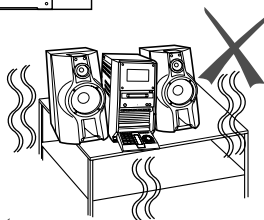
Precautions

■ General

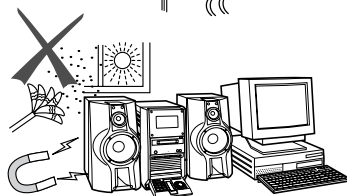
- Please ensure that the equipment is positioned in a well ventilated area and that there is at least 10 cm (4") of free space along the sides and back. There must also be a minimum of 20 cm (8") of free space on the top of the unit.



- Use the unit on a firm, level surface free from vibration.

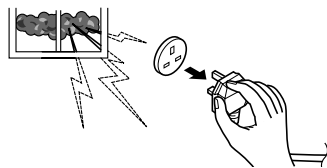


- Keep the unit away from direct sunlight, strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generates electrical noise.

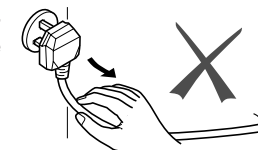


- Do not place anything on top of the unit.
- Do not expose the unit to moisture, to temperatures higher than 60°C (140°F) or to extreme low temperatures.
- If your system does not work properly, disconnect the AC power lead from the wall socket. Plug the AC power lead back in, and then turn on your system.

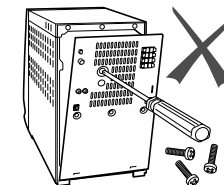
- In case of an electrical storm, unplug the unit for safety.



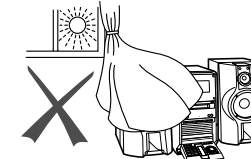
- Hold the AC power plug by the head when removing it from the wall socket, as pulling the lead can damage internal wires.



- Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.



- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.



- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Attention should be drawn to the environmental aspects of battery disposal.
- The apparatus is designed for use in moderate climate.
- This unit should only be used within the range of 5°C - 35°C (41°F - 95°F).

Warning:

The voltage used must be the same as that specified on this unit.

Using this product with a higher voltage other than that which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

■ Volume control

The sound level at a given volume setting depends on speaker efficiency, location, and various other factors.

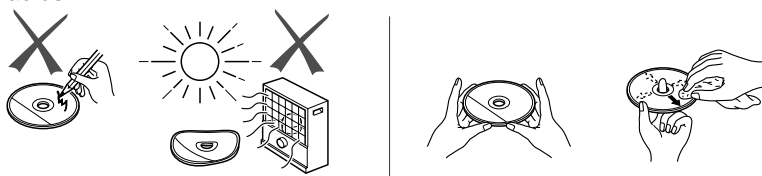
It is advisable to avoid exposure to high volume levels, which occur whilst turning the unit on with the volume control setting up high, or whilst continually listening at high volumes.



Care of compact discs

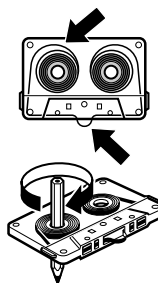
Compact discs are fairly resistant to damage, however mistracking can occur due to an accumulation of dirt on the disc surface. Follow the guidelines below for maximum enjoyment from your CD collection and player.

- Do not write on either side of the disc, particularly the non-label side from which signals are read.
Do not mark this surface.
- Keep your discs away from direct sunlight, heat, and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt, or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the centre, along the radius.

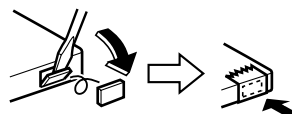
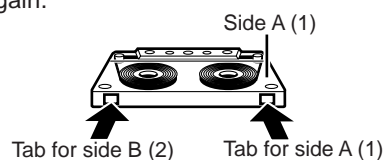


Cassette tape

- For playback, use normal or low-noise tape for the best sound. (Metal or CrO₂ tape is not recommended.) For recording, use only normal tape.
- Do not use C-120 tapes or poor-quality tapes, as they may cause malfunctions.
- Before loading a tape into the cassette compartment, tighten the slack with a pen or pencil.

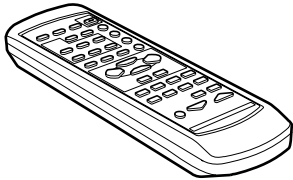
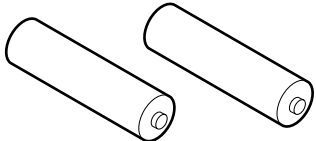
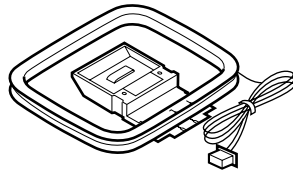
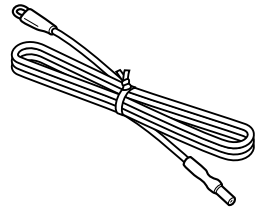
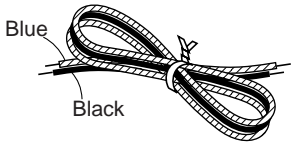
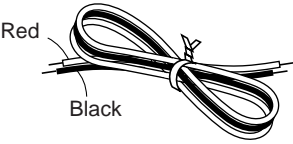


Cassettes have removable tabs which prevent accidental recording or erasing. Removing the tab will protect the corresponding side. Cover the tab holes with adhesive tape to erase or record again.



Accessories

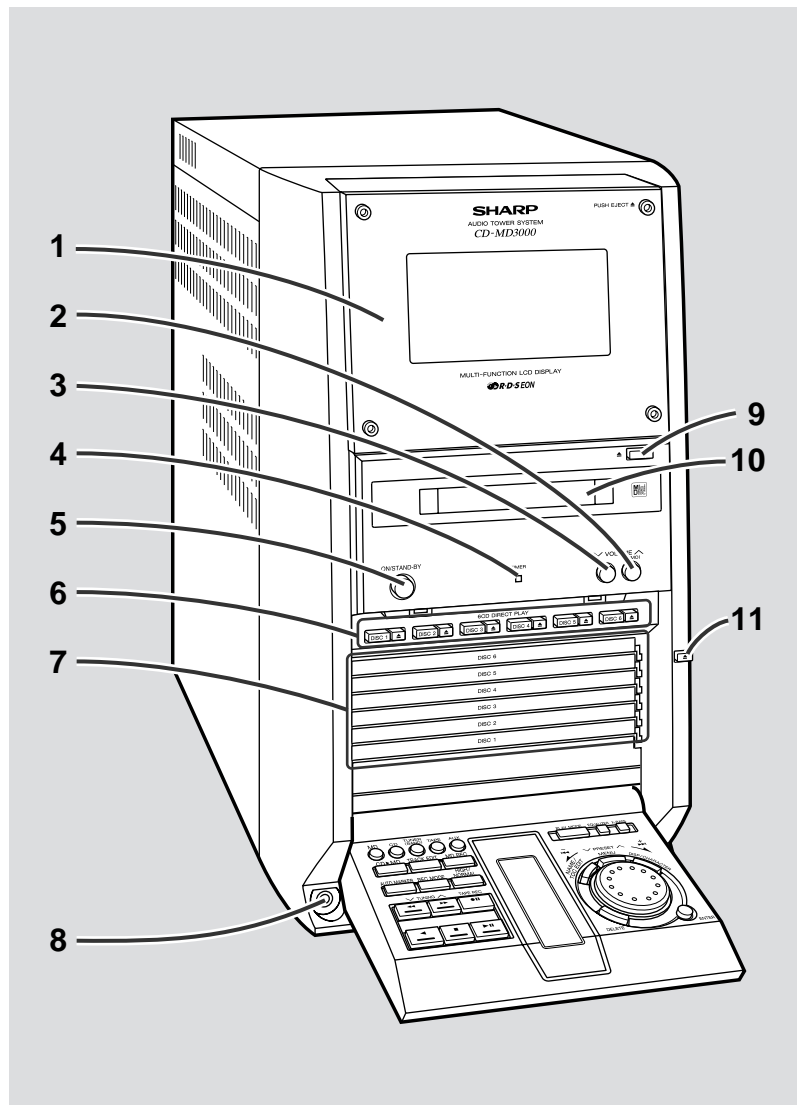
Please confirm that the following accessories are included.

 <p>Remote control × 1</p>	 <p>“AA” size battery (UM/SUM-3, R6, HP-7 or similar) × 2</p>
 <p>AM loop aerial × 1</p>	 <p>FM aerial × 1</p>
 <p>Speaker wire for MAIN terminals × 2</p>	 <p>Speaker wire for SUBWOOFER terminals × 2</p>

Note:
Only the above accessories are included.



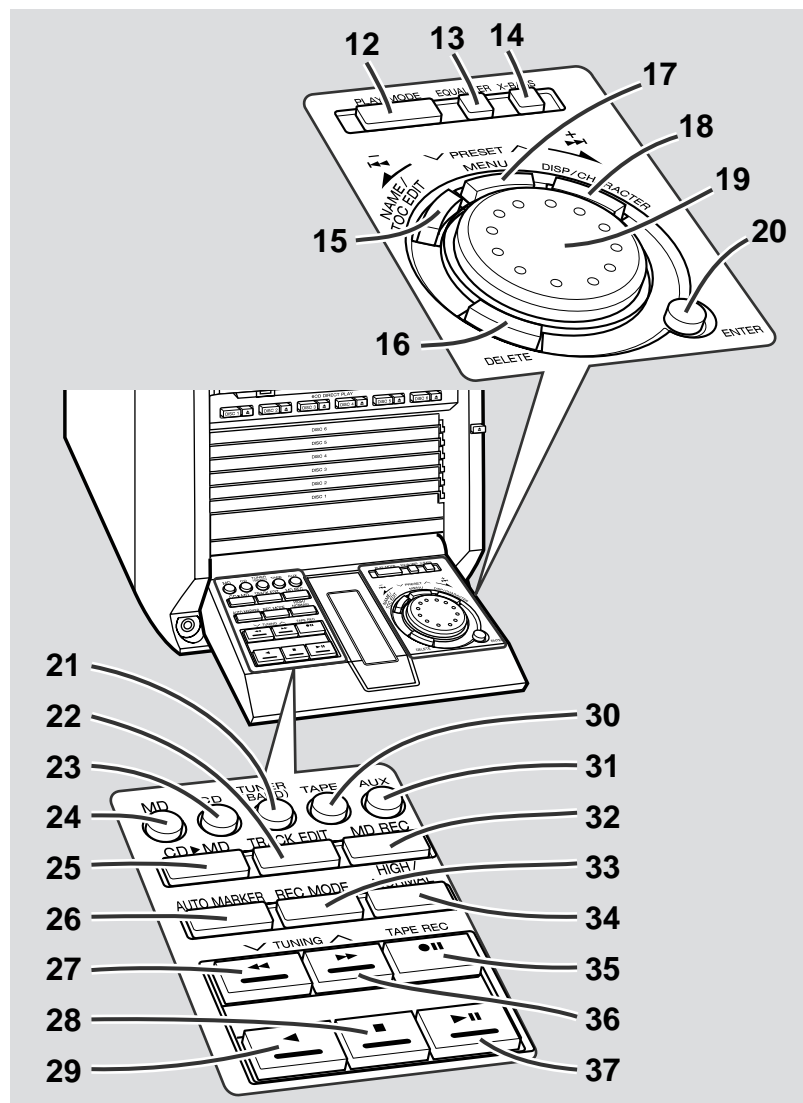
Controls and Indicators



■ Front panel

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| 3. Volume Down Button | 16, 50, 57 |
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| 6. CD Direct Play Buttons (with Indicator)/
CD Eject Buttons | 18, 23, 41 |
| 7. Disc Trays | 18 |
| 8. Headphone Socket | 52 |
| 9. MD Eject Button | 21 |
| 10. MD Compartment | 20, 36 |
| 11. Control Panel Open/Close Button | 15 |



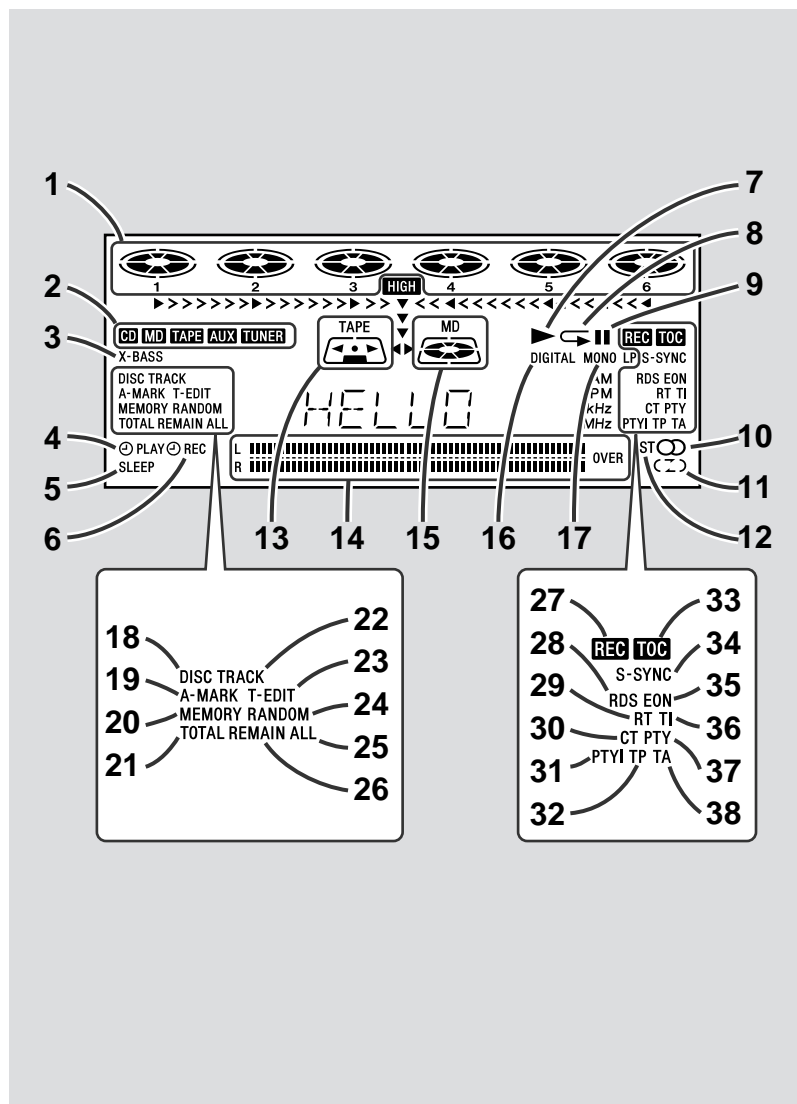
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| 30. Tape Button | 24, 43 |
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| 32. MD Record Button | 39, 53 |
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| 34. MD Record Speed Select Button | 37 |
| 35. Tape Record Pause Button | 41-43, 53 |
| 36. CD/MD Fast Forward, Tape Fast Wind or
Tuning Up Button (with Indicator) | 19, 21, 24, 25 |
| 37. CD/MD Play or Pause, Tape Forward Play Button
(with Indicator) | 19, 20, 24 |

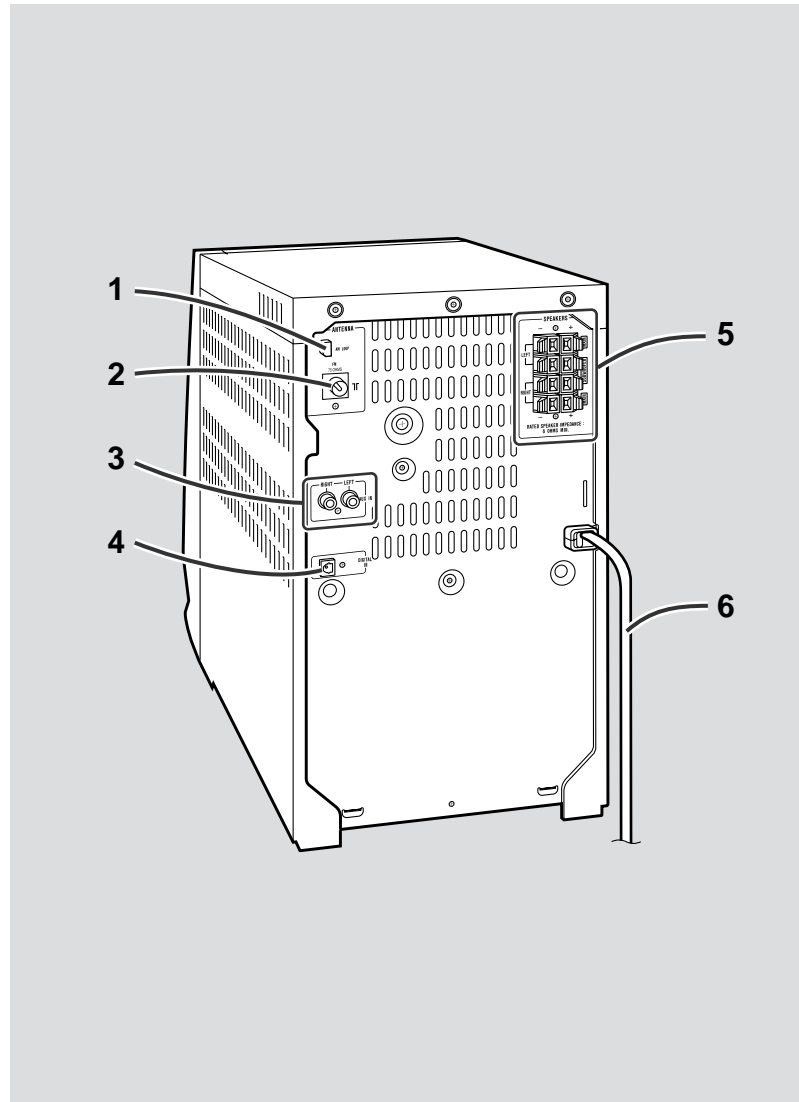


Controls and Indicators (continued)



Multi-function LCD display

1. CD Indicators
2. Function Indicator
3. Extra Bass Indicator
4. Timer Play Indicator
5. Sleep Indicator
6. Timer Recording Indicator
7. CD/MD Play Indicator
8. CD/MD Repeat Indicator
9. CD/MD Pause Indicator
10. FM Stereo Indicator
11. Tape Reverse Mode Indicator
12. FM Stereo Mode Indicator
13. Cassette Indicator
14. Level Meter
15. MD Indicator
16. Digital Source Indicator
17. Monaural Long-Play Mode Indicator
18. Disc Name Indicator
19. Auto Mark Indicator
20. Memory Indicator
21. Total Indicator
22. Track Name Indicator
23. Track Edit Indicator
24. Random Play Indicator
25. CD All Disc Play Indicator
26. Remain Indicator
27. Record Indicator
28. RDS Indicator
29. Radio Text Indicator
30. Clock Time Indicator
31. Dynamic PTY Indicator
32. Traffic Programme Indicator
33. TOC Indicator
34. Synchronised Recording Indicator
35. EON Indicator
36. Traffic Information Indicator
37. Programme Type Indicator
38. Traffic Announcement Indicator



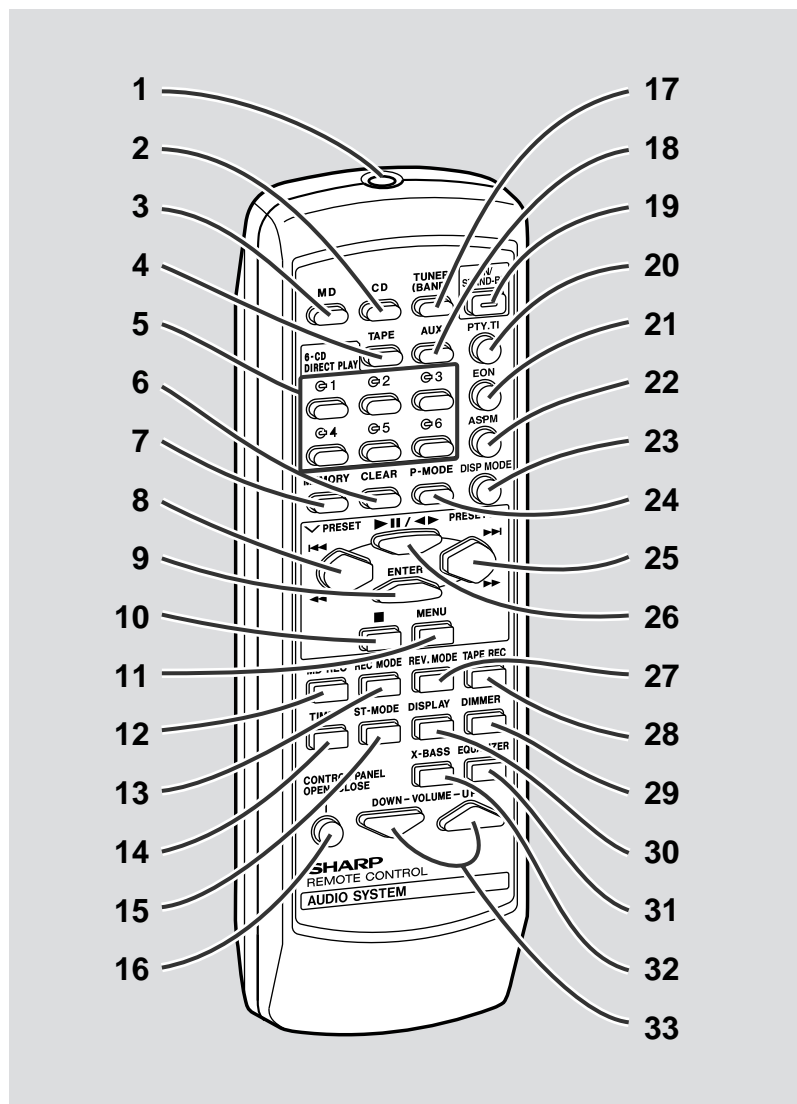
■ Rear panel

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Controls and Indicators (continued)



Remote control

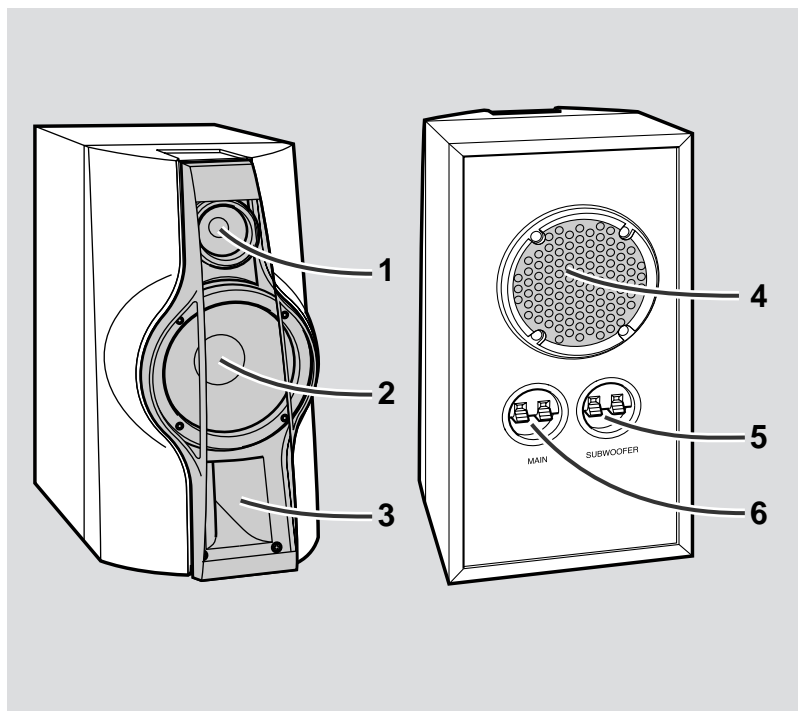
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| 4. Tape Button (No. 30) | |
| 5. CD Direct Play Buttons (No. 6) | 22 |
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| 7. Memory Button | 22 |
| 8. CD/MD Fast Reverse, Tape Fast Wind or
Preset Down Button | 19, 21, 24, 26 |
| 9. Enter Button (No. 20) | 26, 29 |
| 10. Stop Button (No. 28) | 22 |
| 11. Menu Button (No. 17) | |
| 12. MD Record Button (No. 32) | |
| 13. MD Record Mode Button (No. 33) | |
| 14. Time Button | 23, 34 |
| 15. FM Stereo Mode Button | 25 |
| 16. Control Panel Open/Close Button (No. 11) | |
| 17. Tuner (Band) Button (No. 21) | 29, 30 |
| 18. Auxiliary Button (No. 31) | |
| 19. On/Stand-by Button (No. 5) | 14 |
| 20. RDS Programme Type/Traffic Information Search Button | 30-32 |
| 21. RDS EON Button | 31, 32 |
| 22. RDS ASPM (Auto Station Programme Memory) Button | 29 |
| 23. RDS Display Mode Selector Button | 27, 34 |
| 24. CD/MD Play Mode Select Button (No. 12) | |
| 25. CD/MD Fast Forward, Tape Fast Wind or
Preset Up Button | 19, 21, 24, 26 |
| 26. CD/MD Play or Pause, Tape Play Button (No. 29, 37) | 22, 24, 42 |
| 27. Tape Reverse Mode Select Button | 24, 41 |
| 28. Tape Record Pause Button (No. 35) | |
| 29. Dimmer Button | 15 |
| 30. Display Button | 17, 49 |
| 31. Equalizer Mode Select Button (No. 13) | |
| 32. Extra Bass Button (No. 14) | |
| 33. Volume Up or Down Buttons (No. 2, 3) | |

This number (No. ○○) indicates the same function button on the main unit (see pages 6-7). Buttons with no number are on the remote control only. To show common buttons, illustrations of the main unit are used.



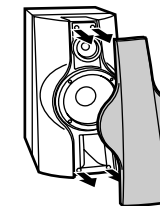
■ Speaker system



- | | |
|---------------------|---------------------------|
| 1. Tweeter | 4. Subwoofer |
| 2. Woofer | 5. Subwoofer Terminals |
| 3. Bass Reflex Duct | 6. Main Speaker Terminals |

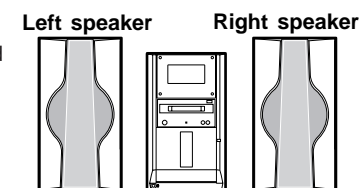
Speaker grilles are removable:

Make sure nothing comes into contact with the speaker diaphragms when you remove the speaker grilles.



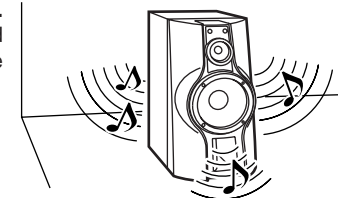
Placing the speaker system:

There is no distinction between the right and the left speakers.



There are two sounds from the subwoofer.

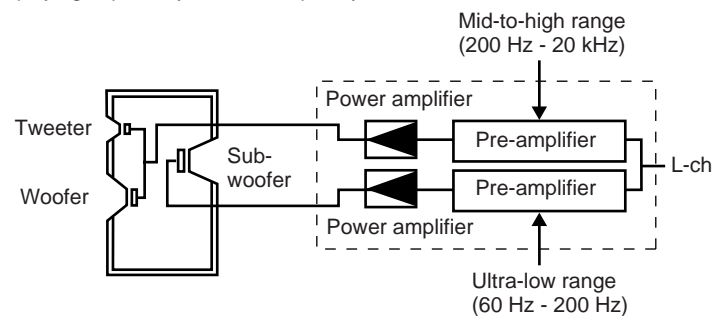
One comes out from the bass reflex duct and the other rebounds from the wall behind the speaker.



Bi-amp system:

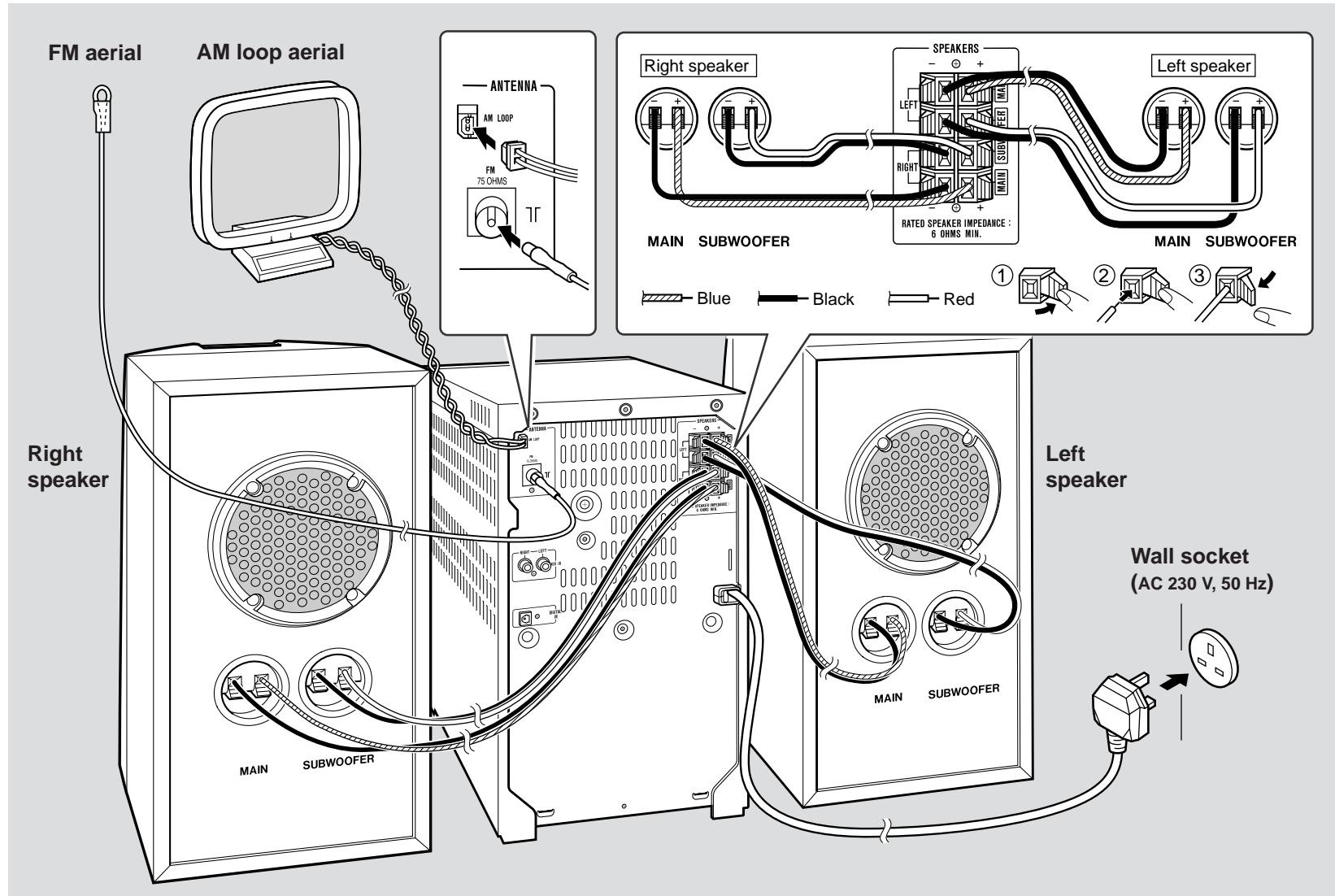
Each speaker unit has a built-in subwoofer (low frequency range) which is driven separately from the woofer and tweeter (mid-to-high frequency range). Two independent amplifiers which have individual frequency characteristics are used.

By amplifying separately the two frequency bands, clearer sound is achieved.





System Connections





■ Aerial connection

Supplied FM aerial:

Connect the FM aerial wire to the FM 75 OHMS socket and position the FM aerial wire in the direction where the strongest signal can be received.

Supplied AM loop aerial:

Connect the AM loop aerial to the AM LOOP socket. Position the AM loop aerial for optimum reception. Place the AM loop aerial on a shelf, etc., or attach it to a stand or a wall with screws (not supplied).

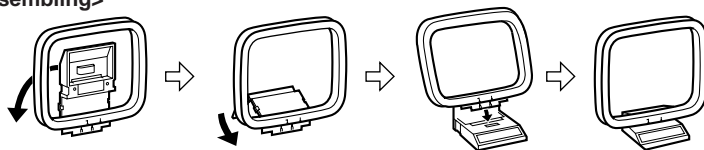
Note:

Placing the aerial on the stereo system or near the AC power lead may cause noise pickup.

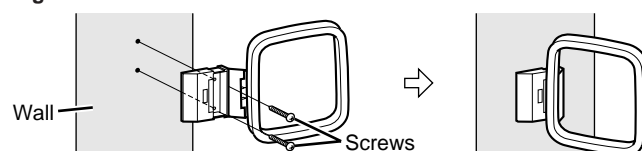
Place the aerial away from the stereo system for better reception.

Installing the AM loop aerial:

<Assembling>



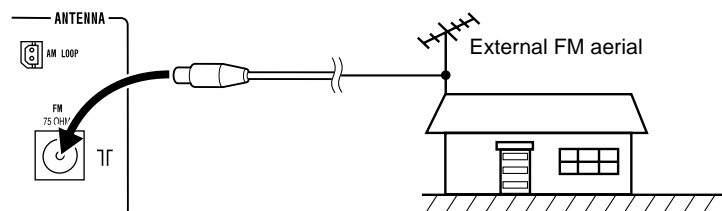
<Attaching to the wall>



External FM aerial:

Use an external FM aerial if you require better reception.

Consult your dealer.



■ Speaker connection

Main terminals (left side of the rear):

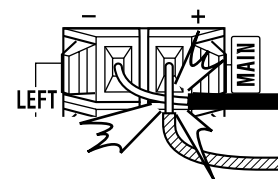
Connect the blue wire to the (+) and the black one to the (-).

Subwoofer terminals (right side of the rear):

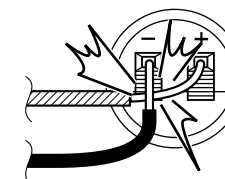
Connect the red wire to the (+) and the black one to the (-).

Caution:

- **Connect the speaker wires to the speakers first, then to the unit.**
- Never mistake the MAIN and the SUBWOOFER terminals. The stereo system or the speakers may be damaged.
- Only the included speakers should be used with this product. Do not use other speakers with this unit or use the supplied speakers with other units.
- Do not mistake the right and the left channels. The right speaker is the one on the right side when you face the unit.
- Do not let the bare speaker wires touch each other.



Incorrect



Incorrect

- Do not stand or sit on the speakers. You may be injured.

■ Connecting the AC power lead

After checking all the connections have been made correctly, plug the unit into the mains.

If you plug the unit first, the unit will enter the demonstration mode (see page 15).

Note:

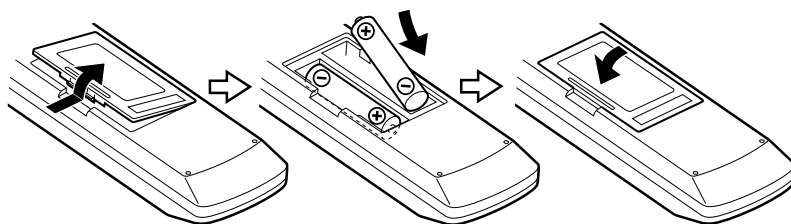
Unplug the unit if it will not be used for a prolonged period of time.



Remote Control

■ Battery installation

1. Remove the battery cover.
2. Insert the supplied batteries according to the direction indicated in the battery compartment.
 - When inserting or removing the batteries, push them towards the \ominus battery terminals.
3. Replace the cover.



Precautions for battery use:

- Replace all old batteries with new ones at the same time.
- Do not mix old and new batteries.
- Remove the batteries if the unit will not be used for long periods of time. This will prevent potential damage due to battery leakage.

Caution:

- Do not use rechargeable batteries (nickel-cadmium battery, etc.).
- Installing the batteries incorrectly may cause the unit to malfunction.

Notes concerning use:

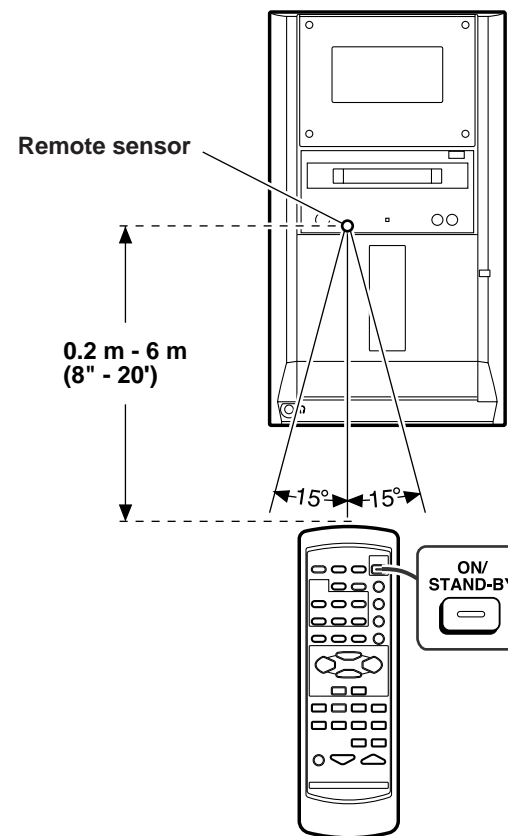
- Replace the batteries if the operating distance is reduced or if the operation becomes erratic.
Purchase 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar).
- Periodically clean the transmitter on the remote control and the sensor on the stereo system with a soft cloth.
- Exposing the sensor on the stereo system to strong light may interfere with operation. Change the lighting or the direction of the stereo system.
- Keep the remote control away from moisture, heat, shock, and vibrations.

■ Test of the remote control

Face the remote control directly to the remote sensor on the unit.

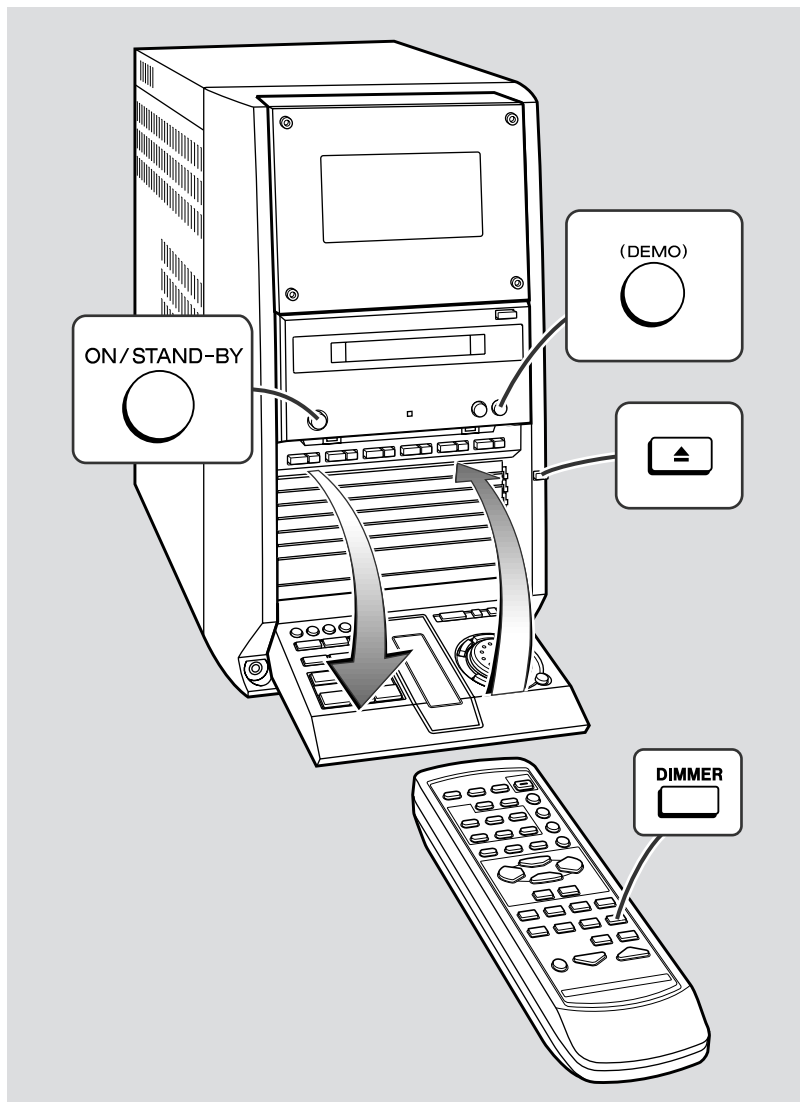
The remote control can be used within the range shown below:

Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy the music.





General Control



■ Demonstration Mode

The first time the unit is plugged, the unit will enter the demonstration mode. You will see words scroll.



To cancel the demonstration mode:

When the unit is in the power stand-by mode (demonstration mode), press the DEMO button. The unit will enter the low power consumption mode.

To return to the demonstration mode:

When the unit is in the power stand-by mode, press the DEMO button again.

■ Opening and closing the control panel

The control panel is motorised.

The control panel automatically opens when the power is turned on, and closes when the unit is set to the power stand-by mode.

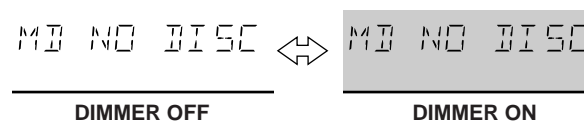
When the power is turned on, you can open or close the control panel by pressing the control panel open/close ▲ button.

Caution:

- Do not push the control panel whilst it is opening or closing.
- Do not press buttons on the control panel strongly. The hinge of the panel may be broken.
- Be careful not to jam your fingers in the control panel.

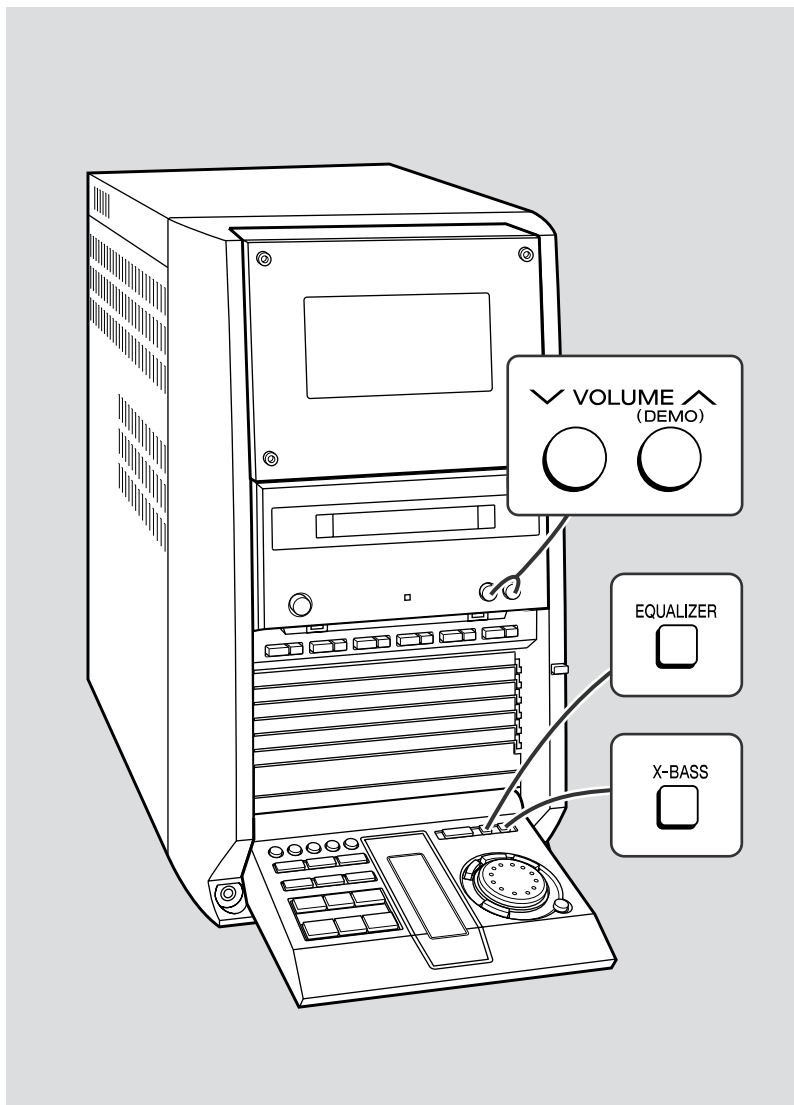
■ Display Brightness (2 levels)

You can switch the display brightness by pressing the DIMMER button.



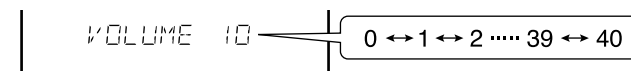


Sound Control



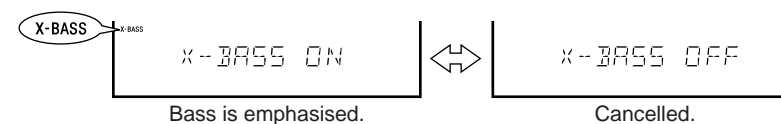
■ Volume control

Press the VOLUME \wedge button to increase the volume and the VOLUME \vee button for decreasing.



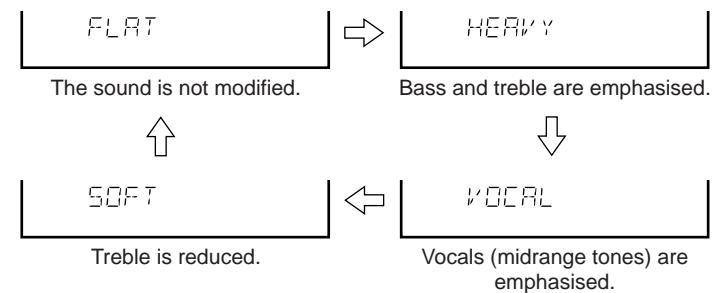
■ Bass control

When the X-BASS button is pressed, the unit will enter the extra bass mode which emphasises the bass frequencies, and "X-BASS" will appear. To cancel the extra bass mode, press the X-BASS button.



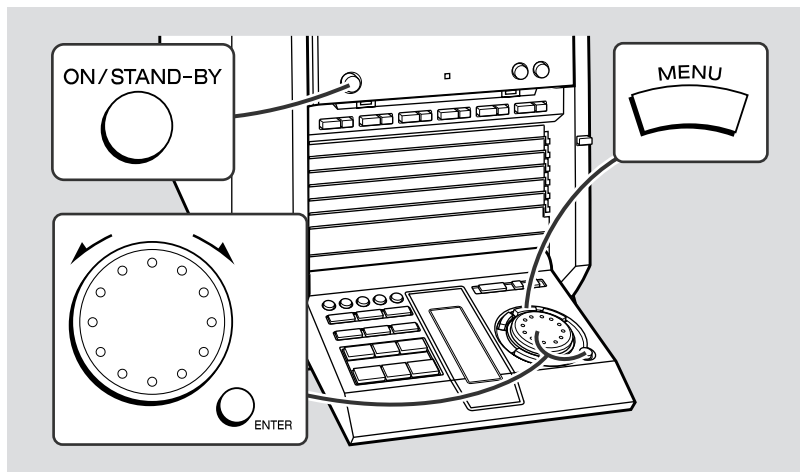
■ Equalizer

When the EQUALIZER button is pressed, the current mode setting will be displayed. To change to a different mode, press the EQUALIZER button repeatedly until the desired sound mode appears.





Setting the Clock

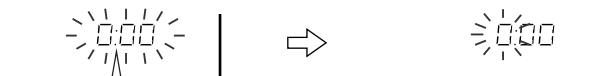


In this example, the clock is set for the 24-hour (0:00) display.

- 1 Press the ON/STAND-BY button to turn the power on.**
- 2 Press the MENU button.**
- 3 Turn the jog dial to select "CLOCK" and within 10 seconds, press the ENTER button.**



- 4 Turn the jog dial to select the 24-hour or 12-hour display and within 2 minutes, press the ENTER button.**



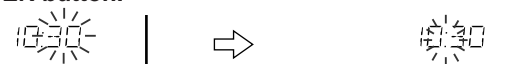
"0:00" → The 24-hour display will appear. (0:00 - 23:59)
"AM 12:00" → The 12-hour display will appear. (AM 12:00 - PM 11:59)
"AM 0:00" → The 12-hour display will appear. (AM 0:00 - PM 11:59)

- 5 Turn the jog dial to adjust the hour and within 2 minutes, press the ENTER button.**



- When the 12-hour display is selected, "AM" will change automatically to "PM".

- 6 Turn the jog dial to adjust the minutes and within 2 minutes, press the ENTER button.**



- The hour will not advance even if minutes advance from "59" to "00".
 - The clock starts from "0" second. (Seconds are not displayed.)
- The time display will disappear after a few seconds.

To confirm the time display:

[When the stand-by mode]

Press the DISPLAY button on the remote control.
The time display will appear for about 3 seconds.

10:30

[When the power is on]

Press the MENU button.
The time display will appear for about 10 seconds.

Note:

"CLOCK" will appear or time will flash at the push of the DISPLAY button when the AC power supply is restored after a power failure or after unplugging the unit.
Reset the clock as follows.

To reset the clock:

[When time will flash]

1. Press the ON/STAND-BY button.
2. Press the MENU button.
3. Press the ENTER button.
4. Perform "Setting the Clock" from step 5.

[When "CLOCK" will appear]

Perform "Setting the Clock" from the beginning.

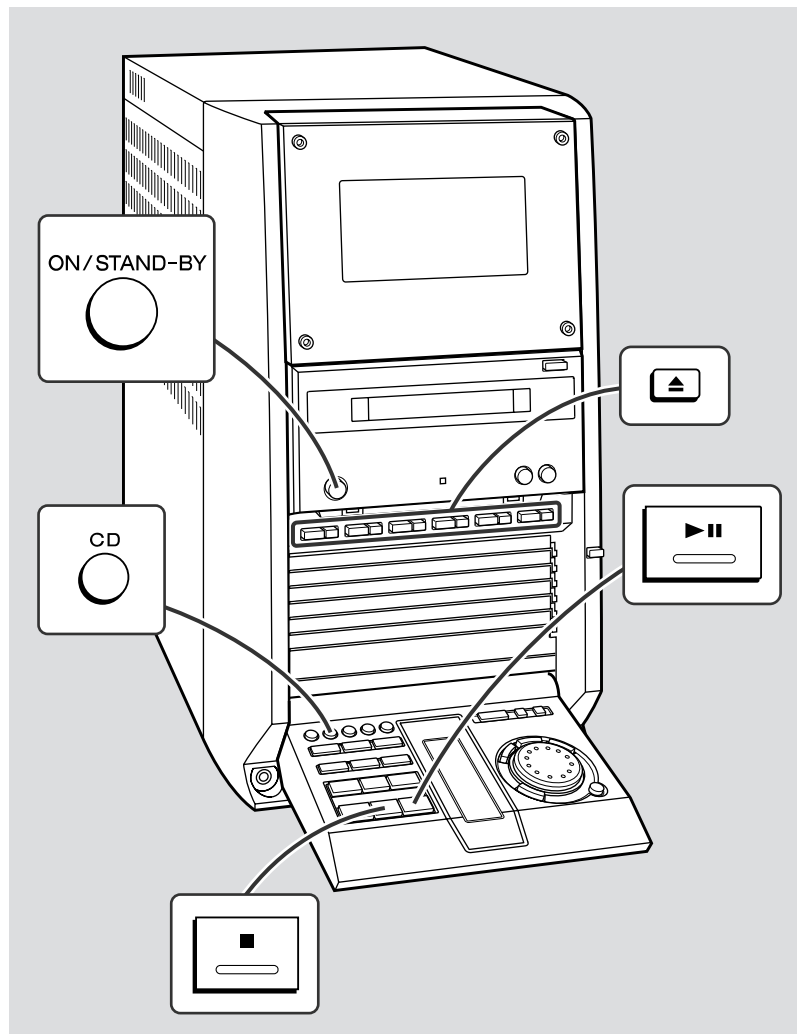
To change the 24-hour or 12-hour display:

1. Clear all the programmed contents.
[Refer to "If trouble occurs (reset)" on page 57 for details.]
2. Perform "Setting the clock" from the beginning.




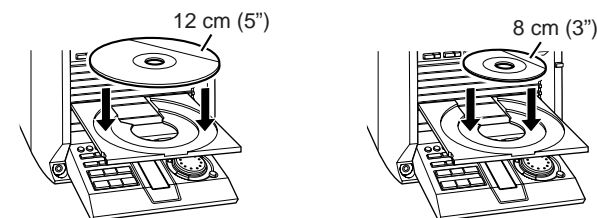
Listening to a CD (CDs)

This system can play audio CD-R and CD-RW discs just as CD discs, but cannot perform recording.

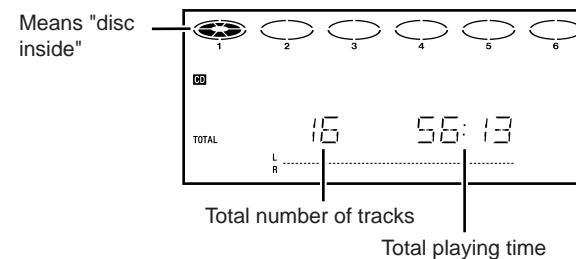


■ To play discs in turn (from Disc 1 to Disc 6)

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the CD button.
- 3 Press the DISC 1  button to open the disc tray 1.
- 4 Place the CD on the disc tray 1, label side up.
 - Be sure to place 8 cm (3") CD in the middle of the disc trays.



- 5 Press the DISC 1  button to close the disc tray 1.



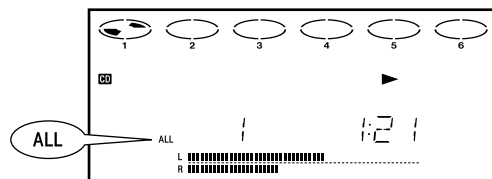
- 6 You can place discs on the trays 2 - 6 by following steps 3 - 5.

Note:

The system will search CD trays until it finds a CD and will not search the rest of the trays.



7 Press the ►|| button to start playback.



- Playback will begin from track 1 on the DISC 1. After that disc finishes playing, the next disc will automatically play.
- When there is no CD in one of the disc tray 1 - 6 positions, that position will be skipped and the next CD will be played.
- When the last track on the DISC 6 has finished playing, the CD player will stop automatically.

To interrupt playback:

Press the ►|| button.

To resume playback from the same point, press the ►|| button again.

To stop playback:

Press the ■ button.

To exchange other CDs whilst playing a disc:

Press the CD▲ button for the stopped disc and exchange discs.

To remove the CDs:

Whilst in the stop mode, press the desired CD▲ button.

After use:

Press the ON/STAND-BY button to enter the power stand-by mode.

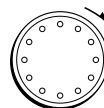
Caution:

- Do not place two CDs in one disc tray.
- Do not push the disc tray whilst it is moving.
- If the power fails whilst the tray is open, wait until the power is restored.
- If the disc tray is stopped forcibly, "E-CD 20" will appear in the display and the unit will not function. If this occurs, press the ON/STAND-BY button to enter the power stand-by mode and then turn the power on again.
- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- If a disc is damaged, dirty, or loaded upside down, the disc will be skipped.

■ To locate the beginning of a track

To move to the beginning of the next track:

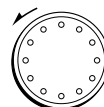
Turn the jog dial slowly clockwise by one position during playback.



- You can skip to any track by turning the jog dial until the desired track number appears.

To restart the track being played:

Turn the jog dial slowly anti-clockwise by one position during playback.



- You can skip to any track by turning the jog dial until the desired track number appears.

Notes:

- You can locate the beginning of a track on a single disc only.
- The ◀◀ or ▶▶ button on the remote control allows you to locate the beginning of a track.

■ To locate the desired portion

For audible fast forward:

Press and hold down the ►► button during playback.



For audible fast reverse:

Press and hold down the ◀◀ button during playback.

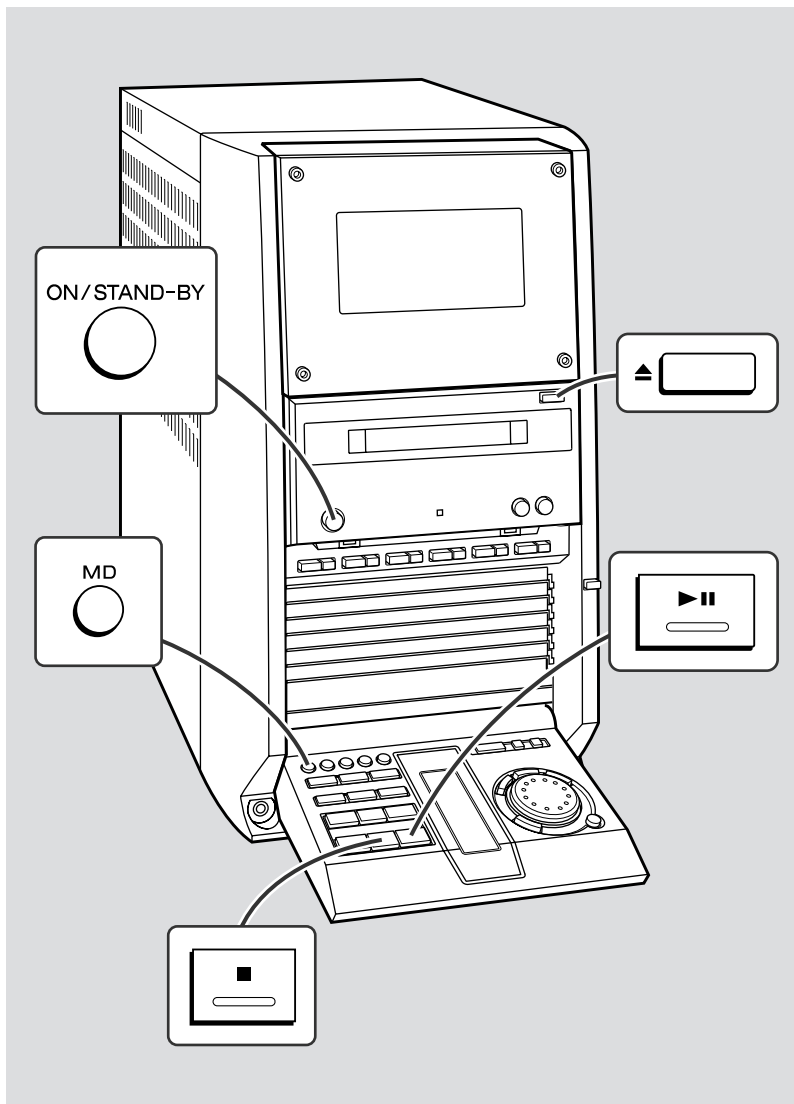


Notes:

- Normal playback will resume when the ◀◀ or ►► button is released.
- When the end of the last track is reached during fast forward, "DISC END" will appear in the display and CD operation will be paused. When the beginning of the first track is reached during fast reverse, the unit will enter the playback mode.
- You can locate the desired portion on a single disc only.



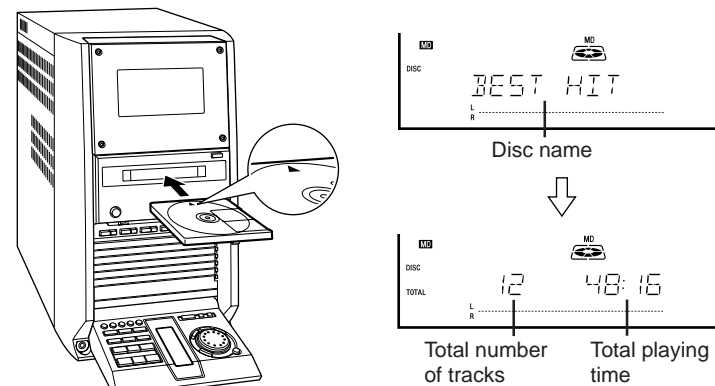
Listening to a MiniDisc



1 Press the ON/STAND-BY button to turn the power on.

2 Press the MD button.

3 Load a MiniDisc into the MD compartment, label side up.



- The disc name will be displayed only when it has been programmed, and then the total number of tracks and the total playing time on the MiniDisc will be displayed.

4 Press the ►|| button to start playback.

- If the MiniDisc has a track name, it will appear and scroll across the display. Then, the elapsed playing time will appear.
- If the MiniDisc has no track names, the elapsed playing time will appear.
- When the last track has finished playing, the MD player will stop automatically.
- Each time the DISP/CHARACTER button is pressed during playback or when in the pause mode, the display will change. (See page 40.)



To interrupt playback:

Press the ►|| button.

To resume playback from the same point, press the ►|| button again.

To stop playback:

Press the ■ button.

To remove a MiniDisc:

Whilst in the stop mode, press the MD▲ button.

After use:

Press the ON/STAND-BY button to enter the power stand-by mode.

Caution:

- If TV or radio interference occurs during MiniDisc operation, move the unit away from the TV or radio.
- Although MiniDiscs will not normally skip due to vibration, you may hear skipping in the sound if there is continuous vibration.
If the volume is turned up too high, sound skipping may occur depending on the contents of the MiniDisc.
If this happens, turn the volume down and the skipping should stop.
- If an error message is displayed during MiniDisc operation, see "Error Messages" on page 55.

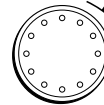
Note:

When the monaural-recorded (long-play recorded) MiniDisc is played, "MONO LP" will be displayed.

■ To locate the beginning of a track

To move to the beginning of the next track:

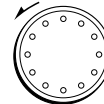
Turn the jog dial slowly clockwise by one position during playback.



- You can skip to any track by turning the jog dial until the desired track number appears.

To restart the track being played:

Turn the jog dial slowly anti-clockwise by one position during playback.



- You can skip to any track by turning the jog dial until the desired track number appears.

Note:

The ◀◀ or ▶▶ button on the remote control allows you to locate the beginning of a track.

■ To locate the desired portion

For audible fast forward:

Press and hold down the ►► button during playback.



For audible fast reverse:

Press and hold down the ◀◀ button during playback.




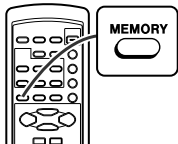
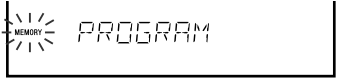
Notes:

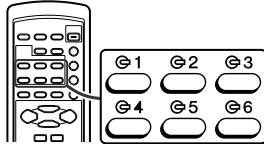
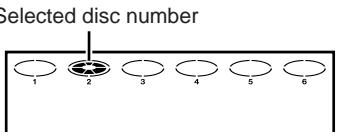
- Normal playback will resume when the ◀◀ or ►► button is released.
- When the end of the last track is reached during fast forward, "DISC END" will appear in the display and MiniDisc operation will be paused. When the beginning of the first track is reached during fast reverse and the ◀◀ button is released, the unit will enter the playback mode.

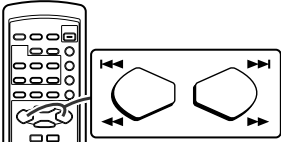
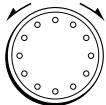
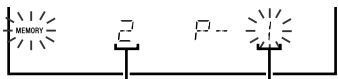
Programmed Play

Up to 32 CD tracks or 20 MD tracks can be programmed.
You cannot programme CD and MiniDisc tracks together at the same time.

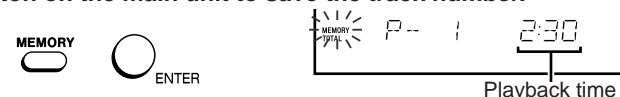
1  (CD operation)
Whilst in the stop mode, press the CD button.
(MiniDisc operation)
Whilst in the stop mode, press the MD button.

2 Press the MEMORY button to enter the programming save mode.
 
CD operation: Go to step 3.
MD operation: Go to step 4.

3 Press one of the 1 - 6 buttons to select the desired disc.
  Selected disc number

4 Use the ◀▶ or ▶▶ button on the remote control or the jog dial on the main unit to select the desired track.
   Selected track number Playback order

5 Press the MEMORY button on the remote control or ENTER button on the main unit to save the track number.



6 Repeat steps 4 - 5 for other tracks. Up to 32 tracks on CDs or 20 tracks on MiniDisc can be programmed.

7 Press the ■ button.



8 Press the ▶||◀ button to start playback.



- At this time, playback will not begin even if one of the DISC 1 - DISC 6 buttons is pressed of the CDs. (When CD programmed play.)

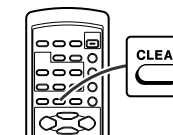
To clear the programmed selections:

Press the CLEAR button whilst the "MEMORY" indicator is flashing.

- Each time the button is pressed, one track will be cleared, beginning with the last track programmed.

To cancel the programmed play mode:

Whilst in the stop mode, press the CLEAR button. The "MEMORY" indicator will disappear and all the programmed content will be cleared.



Adding tracks to the programme:

If a programme has been previously stored, the "MEMORY" indicator will be displayed. Then follow steps 2 - 7 to add additional tracks. The new tracks will be stored after the last track of the original programme.

To check which tracks are programmed:

Whilst the unit is stopped in the programmed play mode, press the ◀▶ or ▶▶ button.

Notes:

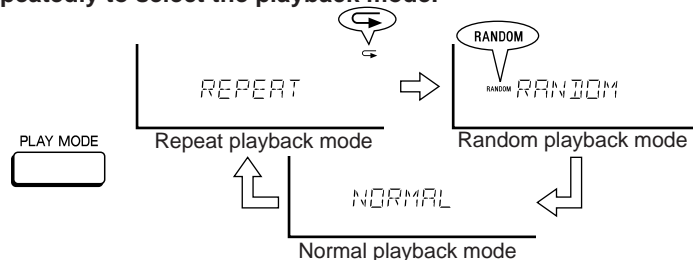
- Opening any tray of the programmed discs or ejecting a MiniDisc automatically cancels the programmed sequence.
- Even if you press the ON/STAND-BY button to enter the stand-by mode or change the function from CD or MD to another function, the programmed selections will not be cleared.
- During programme operation, random play is not possible.



Repeat or Random Play

You can select one of the CD or MD playback mode; "Repeat play", "Random play" and "Normal play".

- 1** When in the CD or MD mode, press the **PLAY MODE** button repeatedly to select the playback mode.



- 2** (CD operation)

Press the **▶||** or one of the **DISC 1 - DISC 6** buttons to start playback.



- If playback is started by pressing the **▶||** button, repeat or random play will be performed on all discs.
- If playback is started by pressing one of the **DISC 1 - DISC 6** buttons, repeat or random play will be performed on that disc.

(MiniDisc operation)

Press the **▶||** button.



To repeat a programmed sequence:

Perform steps 1 - 6 in the "Programmed Play" section and then select the repeat playback.

Notes:

- After using repeat play, be sure to press the **■** button. Otherwise, the disc(s) will play continuously.
- CD random play will be repeated until the **■** button is pressed.
MD random play will stop automatically when all tracks are played once.
(The same track will not be played back twice.)
- In random play, the CD or MiniDisc player will select and play tracks automatically.
(You cannot select the order of the tracks.)

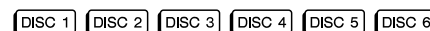
To cancel repeat or random play:

Press the **PLAY MODE** button repeatedly to select the normal playback mode.

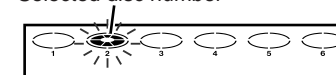
To Specify a Disc to Play (CD only)

You can play a disc by specifying the disc number.

When in the CD mode, press one of the **DISC 1 - DISC 6** buttons to select the desired disc.



Selected disc number



- Only the chosen disc will be played and stopped automatically.

Note:

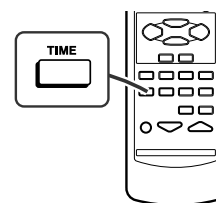
When one of the **DISC 1 - DISC 6** buttons is green, it is ready to play that disc. If there is not a disc on the tray, playback will not begin and the button will turn dark.

To stop playback:

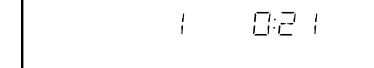
Press the **■** button.

Switching the Time Display

Each time the **TIME** button on the remote control is pressed during playback or in the pause mode, the display will change.



The elapsed playing time for the current track will be displayed.



The remaining playing time for the current track will be displayed.



The total remaining playing time for the disc will be displayed.

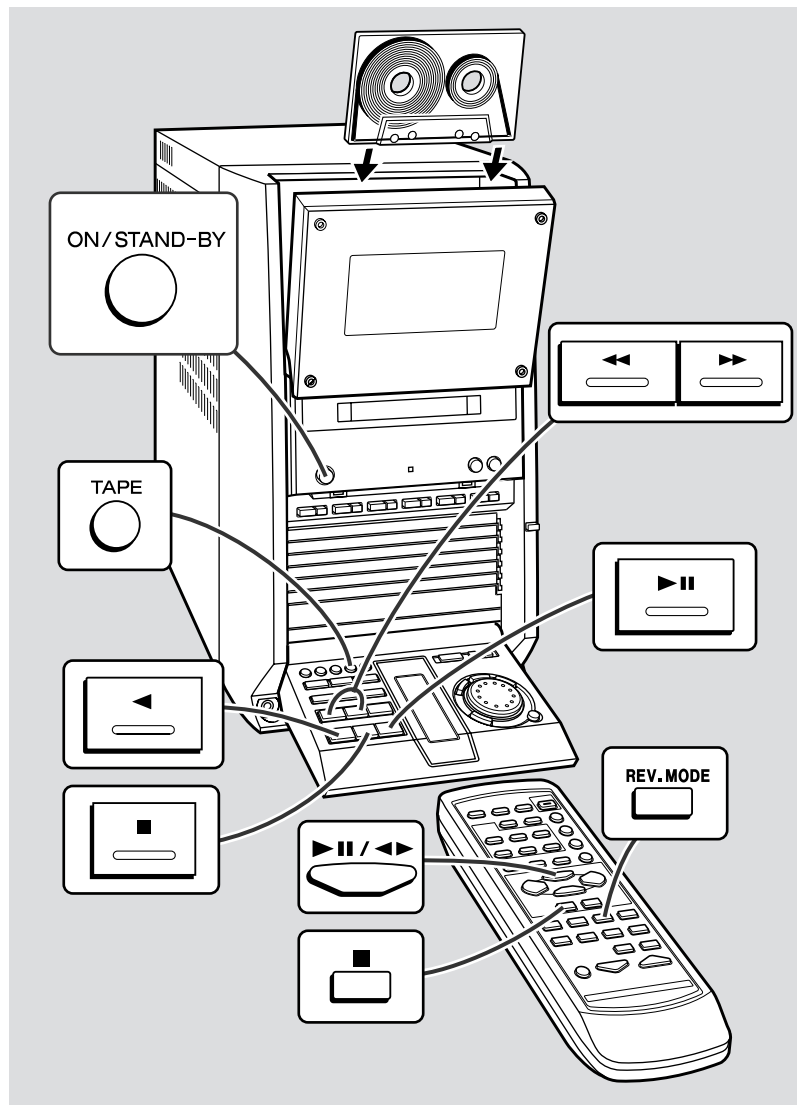


Notes:

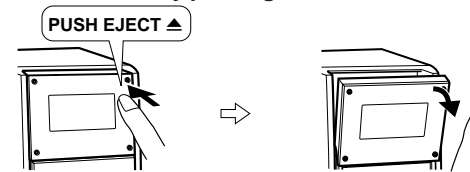
- During random play, the total remaining playing time will not be displayed.
- Depending on the CD or MiniDisc, the playing time display may not match the total playing time which is indicated on the CD or MiniDisc jacket, as the time between tracks is not included.



Listening to a Cassette Tape



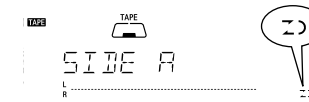
- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the TAPE button.
- 3 Open the cassette door by pushing the area marked "PUSH EJECT ▲".



- 4 Load the cassette into the compartment with side A facing you.

- 5 Press the REV. MODE button on the remote control to choose one side or both sides.

- ⏮ ... To listen to both sides.
- ⏮⏮ ... For endless repeat play of both sides.
- ⏮ ... To listen to one side.



- 6 Press the ►|| button to listen to side A, or the ◀ button for side B.

- To play both sides (⏮), start from side A. When playback starts from side B, side A will not be played.
- To play side B using the remote control, press the ■ button to switch the playback side. Then, press the ►||/◀ button.

To stop playback:

Press the ■ button.

Fast forward/rewind on side A:

To advance the tape, press the ►► button.

To rewind it, press the ◀◀ button.

Fast forward/rewind on side B:

To advance the tape, press the ◀◀ button.

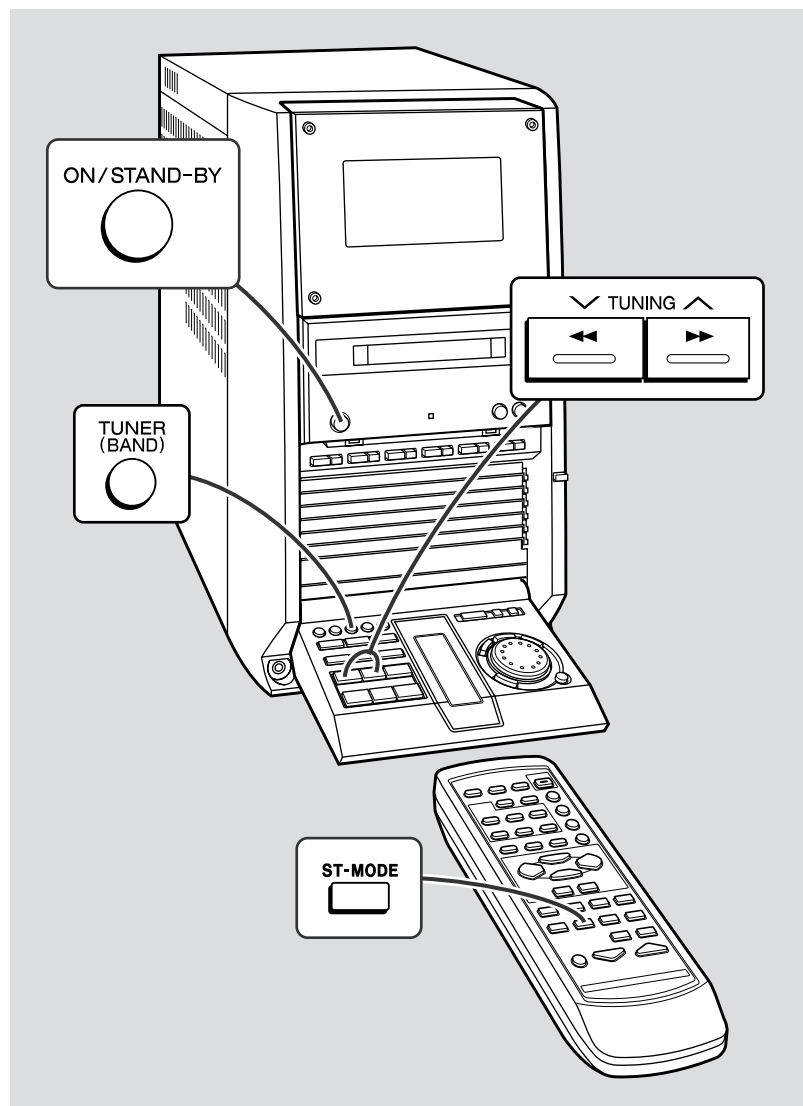
To rewind it, press the ►► button.

Caution:

- To remove the cassette, press the ■ button, and then open the compartment.
- If a power failure occurs during tape operation, the tape head will remain engaged with the tape and the cassette door will not open. Wait until power is restored.
- Even if the ►|| button is pressed during tape playback, the unit will not enter the pause mode.



Listening to the Radio



■ Tuning

- 1 Press the ON/STAND-BY button to turn the power on.**
- 2 Press the TUNER (BAND) button repeatedly to select the desired frequency band (FM or AM).**
- 3 Press the TUNING (V or ^) button to tune into the desired station.**

Manual tuning:

Press the TUNING (V or ^) button as many times as required to tune into the desired station.

Auto tuning:

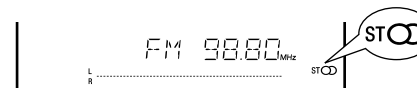
When the TUNING (V or ^) button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

Notes:

- When radio interference occurs, auto scan tuning may stop automatically at that point.
- Auto scan tuning will skip weak signal stations.
- To stop the auto tuning, press the TUNING (V or ^) button again.
- When an RDS (Radio Data System) station is tuned in, the frequency will be displayed first, and then the RDS indicator will light. Finally, the station name will appear.
- Full auto tuning can be achieved for RDS stations "ASPM" see page 29.

- 4 To receive an FM stereo transmission, press the ST-MODE button on the remote control. The "ST" indicator lights up.**

- "∞" will appear when an FM broadcast is in stereo.
- If the FM reception is weak, press the ST-MODE button. The "ST" indicator goes out. The reception changes to monaural, and the sound becomes clearer.



After use:

Press the ON/STAND-BY button to enter the power stand-by mode.



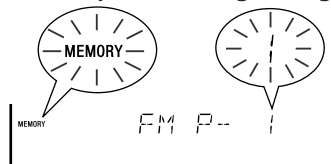
Listening to the Radio (continued)

■ Preset tuning

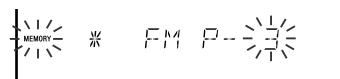
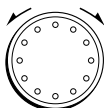
You can store 40 AM and FM stations in memory and recall them at the push of a button.

1 Perform steps 1 - 4 in the “Tuning” section on page 25.

2 Press the ENTER button to enter the preset tuning saving mode.



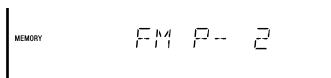
3 Within 5 seconds, turn the jog dial to select the preset channel number.



- Store the stations in memory, in order, starting with preset channel 1.
- When “*” is displayed, a station has already been stored in memory.

4 Within 5 seconds, press the ENTER button to store that station in memory.

- If the “MEMORY” and preset number indicators go out before the station is memorised, repeat the operation from step 2.



5 Repeat steps 1 - 4 to set other stations, or to change a preset station.

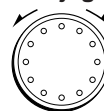
- When a new station is stored in memory, the station previously memorised will be erased.

Note:

The backup function protects the memorised stations for a few hours should there be a power failure or the AC power lead disconnection.

■ To recall a memorised station

Turn the jog dial to select the desired station.



Note:

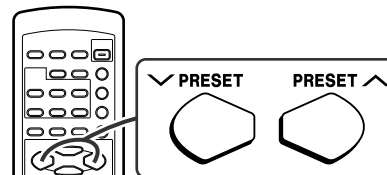
The PRESET (✓ or ^) button on the remote control allows you to recall a memorised station.

■ Preset memory scan

The stations saved in memory can be scanned automatically.

1 To scan the preset stations, press the PRESET (✓ or ^) button on the remote control for more than 0.5 seconds.

- The preset number will flash and the programmed stations will be tuned in sequentially, for 5 seconds each.



2 Press the PRESET (✓ or ^) button again when the desired station is located.

■ To erase all the contents of the preset memory

1. Press the TUNER (BAND) button.
2. Press the ENTER button.
3. Press the CLEAR button.
4. Whilst “ALL CLEAR” is displayed, press the ENTER button.



To erase only one station:

Recall the memorised station. Whilst it is displayed, press the CLEAR button. Whilst “CLEAR” is displayed, press the ENTER button.



Using the Radio Data System (RDS)

RDS is a broadcasting service which a growing number of FM stations provide. These FM stations send additional signals along with their regular programme signals. They send their station names, and information about the type of programme such as sports or music, etc.

When tuned to an RDS station, "RDS" and the station name will be displayed.

"TP" (Traffic Programme) will appear on the display when the received broadcast carries traffic information, and "TA" (Traffic Announcement) will appear whilst a traffic information is on air (see page 33).

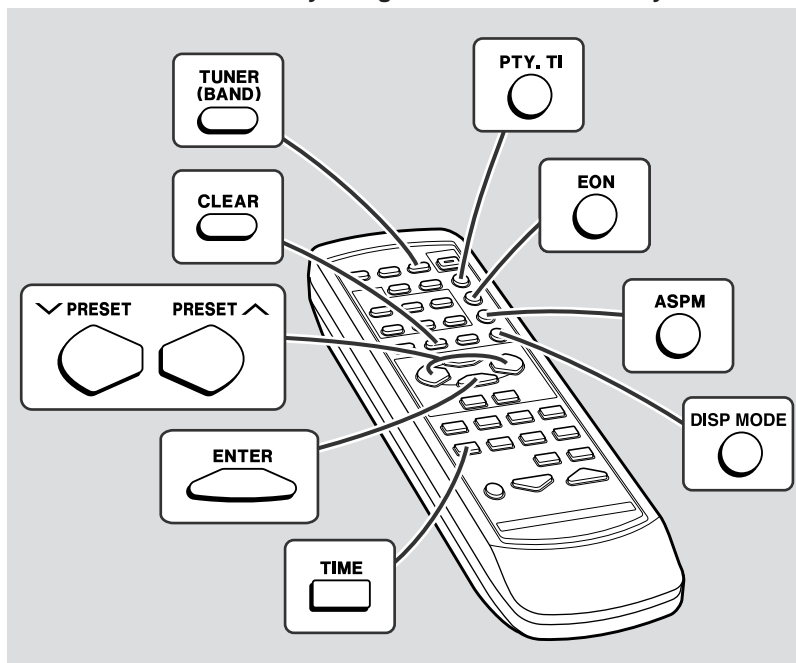
"EON" will appear whilst the EON (Enhanced Other Networks information) data is broadcast.

"PTYI" (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is received.

"RT" (Radio Text) will appear whilst the unit receives the Radio text data.

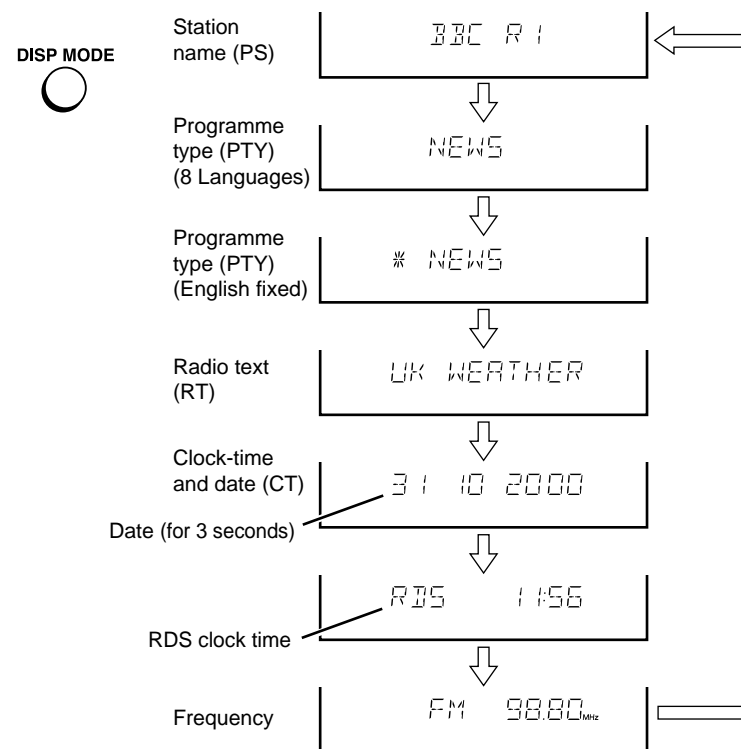
"CT" (Clock Time) will appear whilst the unit receives the RDS CT data.

You can control the RDS by using the remote control only.

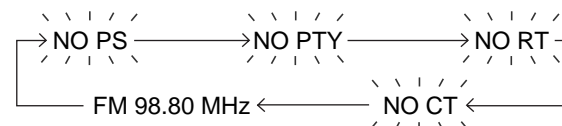


Information provided by RDS

Each time the DISP MODE button is pressed, the display will switch as follows:



When you are tuning in to a station other than an RDS station or to an RDS station which sends weak signal, the display will change in the following order:





Using the Radio Data System (RDS) (continued)

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement)

You can search for and receive the following PTY, TP and TA signals.

NEWS	Short accounts of facts, events and publicly expressed views, reportage and actuality.
AFFAIRS	Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including debate, or analysis.
INFO	Programmes whose purpose is to impart advice in the widest sense.
SPORT	Programme concerned with any aspect of sport.
EDUCATE	Programme intended primarily to educate, of which the formal element is fundamental.
DRAMA	All radio plays and serials.
CULTURE	Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.
SCIENCE	Programmes about the natural sciences and technology.
VARIED	Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes, panel games, personality interviews.
POP M	Commercial music, which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.
ROCK M	Contemporary modern music, usually written and performed by young musicians.
EASY M	Current contemporary music considered to be "easy-listening", as opposed to Pop, Rock or Classical, or one of the specialised music styles, Jazz, Folk or Country. Music in this category is often but not always, vocal, and usually of short duration.
LIGHT M	Classical music for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.
CLASSICS	Performances of major orchestral works, symphonies, chamber music, etc., and including Grand Opera.
OTHER M	Musical styles not fitting into any of the other categories. Particularly used for specialist music of which Rhythm & Blues and Reggae are examples.
WEATHER	Weather reports and forecasts and meteorological information.
FINANCE	Stock Market reports, commerce, trading, etc.
CHILDREN	For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.

SOCIAL	Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.
RELIGION	Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.
PHONE IN	Involving members of the public expressing their views either by phone or at a public forum.
TRAVEL	Features and programmes concerned with travel to near and far destinations, package tours and travel ideas and opportunities. Not for use for announcements about problems, delays, or roadworks affecting immediate travel where TP/TA should be used.
LEISURE	Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing, Antique collecting, Cooking, Food & Wine, etc.
JAZZ	Polyphonic, syncopated music characterised by improvisation.
COUNTRY	Songs which originate from, or continue the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.
NATION M	Current Popular Music of the Nation or Region in that country's language, as opposed to International 'Pop' which is usually US or UK inspired and in English.
OLDIES	Music from the so-called "golden age" of popular music.
FOLK M	Music which has its roots in the musical culture of a particular nation, usually played on acoustic instruments. The narrative or story may be based on historical events of the people.
DOCUMENT	Programme concerned with factual matters, presented in an investigative style.
TEST	Broadcast when testing emergency broadcast equipment or receivers.
ALARM !	Emergency announcement made under exceptional circumstances to give warning of events causing danger of general nature.
NONE	No programme type (receive only).
TP	Broadcasts which carry traffic announcements.
TA	Traffic announcements are being broadcast.

Note:

When you select a programme in the EON stand-by mode, the unit will display "TI" instead of "TA".



■ Using the Auto Station Programme Memory (ASPM)

Whilst in the ASPM operation mode, the tuner will automatically search for new RDS stations. Up to 40 stations can be stored.

If you have already stored some stations in memory, the number of new stations you can store will be less.

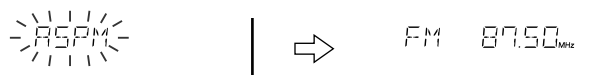
1 Press the TUNER (BAND) button to select FM band.



2 Press and hold down the ASPM button for at least 3 seconds.



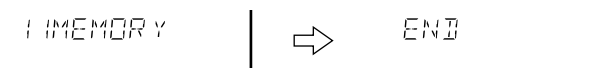
1. After "ASPM" has flashed for about 4 seconds, scanning will start (87.50 - 108.00 MHz).



2. When an RDS station is found, "RDS" will appear for a short time and the station will be stored in memory.



3. After scanning, the number of stations stored in memory will be displayed for 4 seconds, and then "END" will appear for 4 seconds.



To stop the ASPM operation before it is complete:

Press the ASPM button whilst it is scanning for stations.

The stations which are already stored in memory will be kept there.

Notes:

- If the same station is broadcasting on different frequencies, the strongest frequency will be stored in memory.
- Any station which has the same frequency as the one stored in memory will not be stored.
- If 40 stations have already been stored in memory, the scan will be aborted. If you want to redo the ASPM operation, erase the preset memory.
- If the RDS signals are very weak, station names may not be stored in memory.

To erase all of the contents of preset memory:

1. Press the TUNER (BAND) button.
2. Press the ENTER button.
3. Press the CLEAR button on the remote control.
4. Whilst "ALL CLEAR" is displayed, press the ENTER button.



To store a station name again if the wrong name was stored in memory:

It may be impossible to store station names in memory using the ASPM function if there is lots of noise or if the signal is too weak.

In this case, perform as follows.

1. Press the PRESET (✓ or ^) button to check whether the names are correct.
 2. If you find a wrong name during receiving the station. Wait until the correct name will be displayed. And then press the ENTER button.
 3. Within 5 seconds, press the ENTER button again whilst the preset channel number is flashing.
- The new station name has been stored in memory correctly.

Notes:

- The same station name can be stored in different channels.
- In a certain area or during certain time periods, the station names may temporarily be different.



Using the Radio Data System (RDS) (continued)

■ To recall stations in memory

To specify programmed types and select stations (PTY search):

You can search a station by specifying the programme type (news, sports, traffic programme, etc. ... see page 28) from the stations in memory.

1 Press the TUNER (BAND) button to select the FM.



2 Press the PTY.TI button.



PTY TI



SELECT

- "PTY TI" and "SELECT" will appear alternately for about 6 seconds.

3 Within 6 seconds, press the PRESET (✓ or ^) button to select the programme type.

✓ PRESET

PRESET ^



NEWS

- Each time the button is pressed, the programme type will appear. If the button is held down for more than 0.5 seconds, the programme type will appear continuously.

4 Whilst the selected programme type is flashing (within 4 seconds), press the PTY.TI button again.



NEWS



SEARCH

- After the selected programme type has been lit for 2 seconds, "SEARCH" will appear, and the search operation will start.

P

BBC R1

BBC R1

Notes:

- If the display has stopped flashing, start again from step 2.
If the unit finds out a desired programme type, corresponding channel number will flash for about 3 seconds, and then the station name will flash for 7 seconds, and then will remain lit.
- If you want to listen to the same programmed type of another station, press the PTY.TI button whilst the channel number or station name is flashing. The unit will look for the next station.
- If no station can be found, "NOT FOUND" will appear for 4 seconds.

If you select the traffic programme:

If you select the traffic programme (TP) in step 4, "TP" will appear. (This does not mean that you can listen to the traffic information at that time.)
When a traffic information is broadcast, "TA" will appear.

To specify station names and select stations manually:

You can select a station by specifying the name (BBC R1, BBC R2, etc.) from the stations stored in memory.

Before starting this operation, you must store one or more station names in memory.

1. Press the TUNER (BAND) button to select the FM band.
2. Press the PRESET (✓ or ^) button to select a desired station.

BBC R1

3. The station name will be displayed for 3 seconds. Then the display will change as follows.

FM 98.80 MHz



BBC R1



■ To automatically play the desired programme (EON-PTY)

When the desired type of programme is broadcast, the radio switches to it automatically.

1 Tune in to an RDS station (when a station name is displayed).

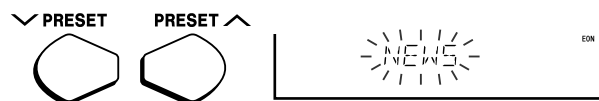


2 Press the EON button when "EON" appears.



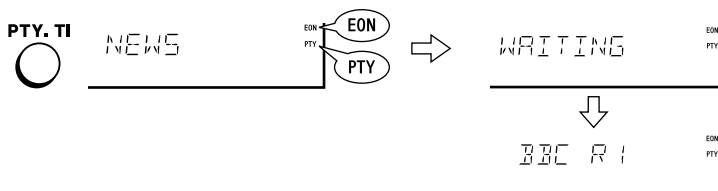
- "PTY TI" and "SELECT" will appear alternately for about 6 seconds.
- If the EON button is pressed when "EON" is not displayed, "NO EON" will appear for 5 seconds to indicate that the unit cannot enter the EON stand-by mode.

3 Whilst they are displayed, select the desired programme type by pressing the PRESET (✓ or ^) button.



- The selected programme type will flash.

4 Within 4 seconds, press the PTY.TI button.



- The selected programme type and "WAITING" will be displayed for 2 seconds each.
- "PTY" will appear, and the unit will enter the EON-PTY stand-by mode.

5 When the specified programme starts on an ON (other network) station, the unit will automatically switch to the station and "PTY" will flash.



6 When the programme is over, the unit will automatically return to the original station.

Checking the stand-by mode setting:

When in the EON stand-by mode, press the EON button.
(“Programme type” → “WAITING”)

To cancel the EON stand-by mode:

When in the EON stand-by mode, press the EON button. Within 4 seconds, press it again.
(“PTY” will go out.)

About the PTYI (Dynamic PTY Indicator):

“PTYI” (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is received. Dynamic PTY indicates that the PTY for the station tuned in, or the PTY referenced in the EON data, is assessed whenever the programme changes and may be changed.

PTYI	Meaning
Lights up	Tuned into a dynamic PTY station.
Goes out	Tuned into a static PTY.

- When “PTYI” appears, press the DISP MODE button to check the type of the current programme.



Using the Radio Data System (RDS) (continued)

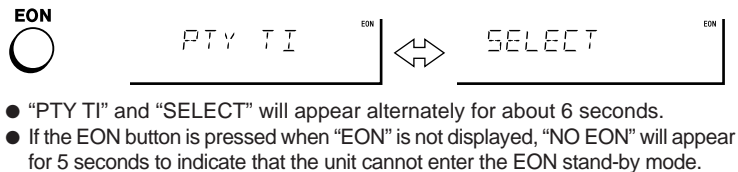
■ To automatically play the traffic information (EON-TI)

When the traffic information is broadcast, the radio switches to it automatically.

- 1** Tune in to an RDS station (when a station name is displayed).



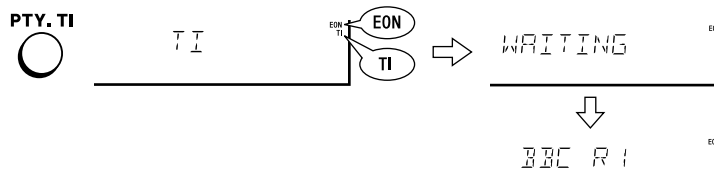
- 2** Press the EON button when "EON" appears.



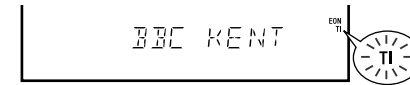
- 3** Whilst they are displayed, select the TI (Traffic Information) by pressing the PRESET (✓ or ^) button.



- 4** Within 4 seconds, press the PTY.TI button.



- 5** When a TA specified starts on an ON (other network) station, the unit will automatically switch to that station, and "TI" will flash.



- 6** When the traffic information is over, the unit will automatically return to the original station.

Checking the stand-by mode setting:

When in the EON stand-by mode, press the EON button.
("TI" → "WAITING")

To cancel the EON stand-by mode:

When in the EON stand-by mode, press the EON button. Within 4 seconds, press it again.
● "TI" will go out.



■ Notes for RDS operation

If any of the following events occur, it does not mean that the unit is faulty:

- “PS”, “NO PS” and a station name appear alternately, and the unit does not operate properly.
- If a particular station is not broadcasting properly or a station is conducting tests, the RDS reception function may not work properly.
- When you receive an RDS station whose signal is too weak, information like the station name may not be displayed.
- “NO PS”, “NO PTY”, “NO RT” or “NO CT” will flash for about 5 seconds, and then the frequency will be displayed.

Notes for Radio text:

- The radio text for 10 characters will be displayed steadily for 4 seconds and then it will scroll across the display.
- If you tune in to an RDS station which is not broadcasting any radio text, “NO RT” will be displayed when you switch to the radio text position.
- Whilst radio text data is received or when the text contents change, “RT” will be displayed.

Notes for PTY Languages:

- When you press the DISP MODE button after entering the PS (Programme Service), PTY Languages mode will be selected. In this mode, PTY names will be displayed automatically in the local language where an RDS station is located. Eight languages (including English) are available.
- If you tune in to an RDS station which is not broadcasting PTY language data, the PTY name will be displayed in English.
- A PTY name may be displayed in English for a short time, until a signal determining the local PTY language is received.
- PTY languages are also used for PTY-Search and EON-PTY operation at any DISPLAY MODE except PTY English.

About the “TP” and “TA” indicators:

“TP”	“TA”	Meaning
Not lit	Not lit	Does not carry traffic announcements nor does it refer, via EON, to a programme that does.
Not lit	Lit	Carries EON information about another programme which gives traffic information.
Lit	Not lit	Carries traffic announcements but not at present and may also carry EON information about other traffic announcements.
Lit	Lit	A traffic information is currently on air.

In the following cases, the EON stand-by mode will be cancelled.

- When you press the ON/STAND-BY button to enter the stand-by mode.
- When the unit is switched to another band in the EON stand-by mode.
- When you change the FM station whilst in the EON stand-by mode.
- When a preset call is made.

Notes:

- Whilst the same programme as the specified PTY (or TA) is being broadcast, the unit will not switch to an ON (other network) station.
- If there are more than two other network stations, compare the strength of signal and tune in to the station with the strongest signal (EON-AF).
If other network station has been stored in the preset channel memory, the unit will switch to that channel.
- If you want to leave an ON (other network) station tuned in by the EON and return to the station you were receiving, press the EON button.
- After the unit returns to the original station, the stand-by mode will still be active. (The “TI” or “PTY” will remain lit.)
- The unit does not switch between ON stations. It returns to the original station.
- If there is any problem with the ON station the unit switched to, “WEAK SIG” will appear and the unit will return to the original station.
- If the signal from the ON station the unit switched to is very weak, the unit will search for another station with the strongest signal.
However, if the signals from all stations are weak or not good (due to electrical noise), the unit displays “WEAK SIG” and returns to the original station.



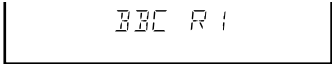
Using the Radio Data System (RDS) (continued)

■ To set the internal clock by the RDS time signal

You can set the internal clock using the RDS time signal (RDS CT data). This is useful because the internal clock is set automatically from the time signal sent by an RDS station.

Before setting, select one of the 24-hour or 12-hour display as shown on page 17.

1 Tune in to an RDS station (when its name is displayed).



BBC R1

2 Press the DISP MODE button to select CT.

(Example: 11:56 on October 31, 2000)



DISP MODE 31 10 2000 → RDS 11:56

For 3 seconds RDS clock time

3 Whilst RDS time is displayed, hold down the TIME button for at least 3 seconds.

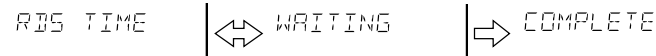
(Example: 11:50)



TIME 11:50

Internal clock time

- If the internal clock has not been set, "CLOCK" will appear.
- "RDS TIME" and "WAITING" will appear alternately. Wait until "COMPLETE" appears. (It will appear in less than 60 seconds.)



RDS TIME → WAITING → COMPLETE

4 After the internal clock has been set, "COMPLETE" will be displayed for 3 seconds. Then the updated time will be displayed.

- Press the TIME button to check whether the internal clock is displaying the same time as the RDS clock.

Notes:

- When the TIME button is pressed whilst the RDS time is displayed, the RDS clock and the internal clock can be displayed alternately, which allows you to compare the time shown.
If you have not yet set the clock display mode, "CLOCK" will appear.
- Whilst "NO CT" or "CT" is displayed, the internal clock cannot be set.
- If the signal from a station is weak or noisy, you may not be able to set the internal clock.

Note for clock-time and date mode:

When the DISP MODE button is pressed repeatedly to select CT, the date (Day-Month-Year) will be displayed for 3 seconds, and then the RDS clock time display will appear.

- The RDS clock time appears with "RDS", so that you will know it is not the internal clock time.

Notes:

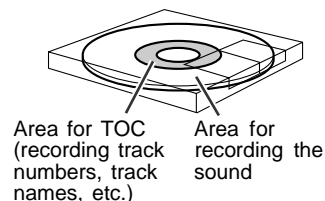
- If you tune in to an RDS station which is not sending clock-time and date (CT data) and you select CT, "NO CT" will be displayed.
- If you are not receiving CT data, even though you are tuned into an RDS station, "CT" will be displayed.
The CT data is sent at the top of each minute.
- If an RDS signal is weak or noisy, the clock time may be displayed as "—" (hyphens) or it may not be displayed correctly.
- You must check the clock's accuracy because the RDS time signal (CT data) may not be correct, depending on the station.
- The date normally changes at midnight, Greenwich Mean Time (G.M.T.), not local time.



Before Recording to a MiniDisc

■ Disc writing (TOC)

The TOC (Table of Contents) is information on track numbers and recording areas to allow the unit to recognise musical selections or sounds. The entire MiniDisc is controlled depending on this TOC, which enables the unit to find the beginning of a track quickly or to automatically record in a vacant area.



When you start recording or editing, "TOC" will appear in the display window. This indicates that information in the TOC is now being changed according to the recording or editing being performed. (The changed TOC is not yet recorded on the MiniDisc at this time.)

The TOC is recorded when

- You stop recording.
- You switch to another input source.
- You eject the MiniDisc.
- You enter the stand-by mode.

Do NOT unplug the power lead whilst the TOC is being recorded ("TOC" is flashing) and do NOT impart shock to the unit. Otherwise, TOC will not be correctly recorded, and consequently proper playback may not be possible.

Recordings cannot be made in the following situations.

- If you try recording on a playback-only MiniDisc (commercially available music MiniDisc).
- If a MiniDisc is protected against accidental erasure (See page 54).
- If there is no more recording time left on the disc (See page 55).
- When the "TOC FULL" message appears (See page 55).
- If a disc's TOC has been damaged.

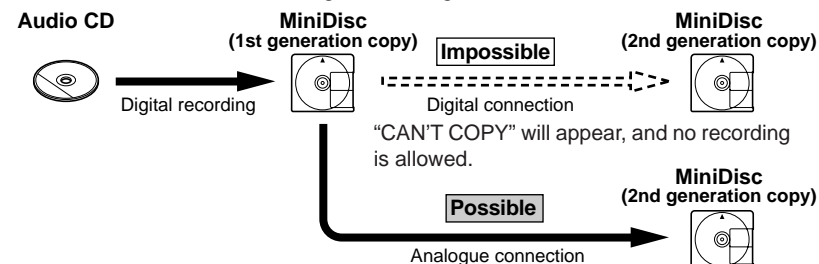
■ Sampling rate converter

This system is equipped with a sampling rate converter, which automatically converts the sampling frequencies of the connected digital tuners or DAT decks (32 kHz, 48 kHz) to 44.1 kHz. You can digitally record from equipment with different sampling frequencies.

■ Serial Copy Management System (SCMS)

This player is equipped with a digital prevention mechanism which complies with the SCMS. The SCMS limits the production of digital copies to one generation for copyright protection. If a digital copy (first generation copy) is made from a copyright-protected digital source (audio CD or the like), no further digital copying (from the second generation) is allowed.

The SCMS does not affect analogue recording.



Notes:

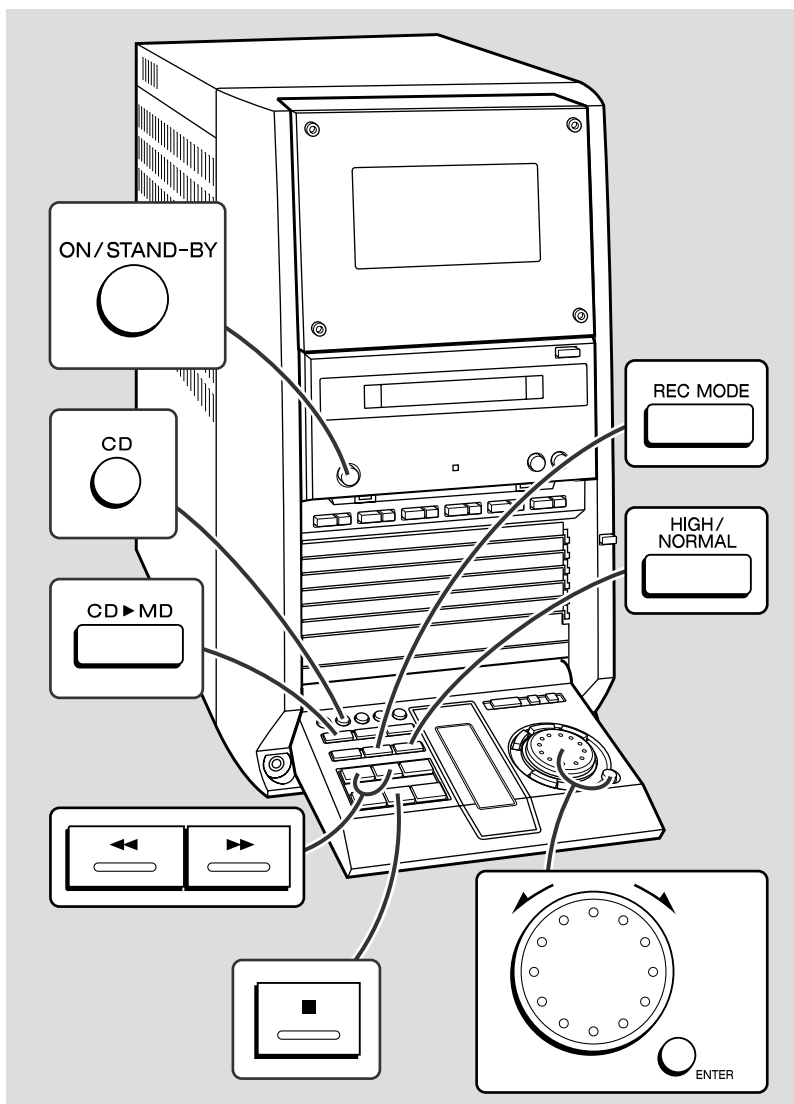
- When the copyright-protected tracks on a CD-R are recorded to a MiniDisc in this unit, they will be skipped automatically and the other tracks will be recorded.
- Copyright-protected digital source cannot be recorded from any external devices.

Notes for recording

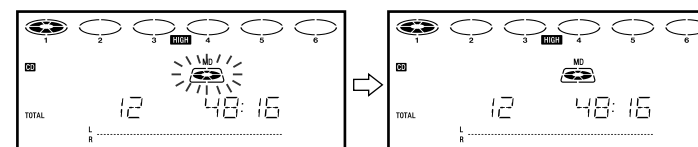
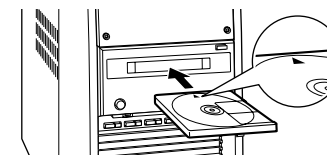
- SHARP is not liable for damage or loss of your recording arising from malfunction of this unit.
- When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.
- The VOLUME, X-BASS and EQUALIZER controls can be adjusted with no effect to the recorded signal (Variable Sound Monitor).



Recording to a MiniDisc from CDs

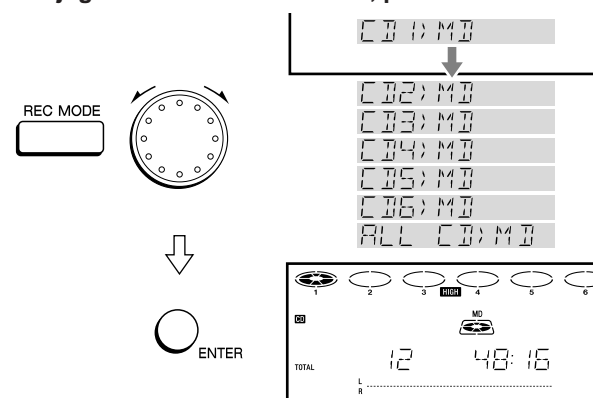


- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the CD button and load the desired CD(s).
- 3 Load a recordable MiniDisc into the MD compartment, label side up.



- Whilst the system is reading the MiniDisc, the disc display will flash. Wait until the display is steady before proceeding.

- 4 Press the REC MODE button and select the desired CD using the jog dial. Within 10 seconds, press the ENTER button.



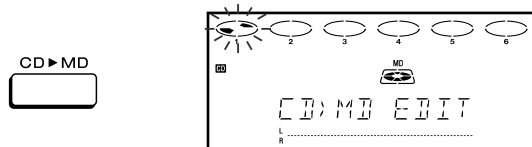
CD1 > MD to CD6 > MD : Records the selected CD only.
ALL CD > MD : Records all CDs.



In the following steps 5 - 6, your choice must be entered within 5 seconds, otherwise the system will proceed to the next step automatically.

- For just checking, perform step 5 only.
- To change the setting, follow the procedure.

5 Press the CD ► MD button.

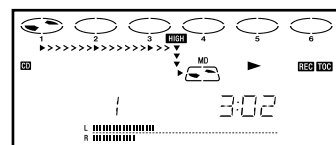


6 Turn the jog dial to select "HI" or "NORMAL" mode. Then press the ENTER button to start recording.



HI : High speed recording.
NORMAL : Normal speed recording.

- You can also change the recording speed using the HIGH/NORMAL button.



- When the CD reaches the end, recording will stop.

About track numbers:

New track numbers will be created automatically according to the original tracks (Synchro mark function).

- When you record from a CD to a MiniDisc, the track numbers recorded on the MiniDisc may not match the track numbers on the CD.

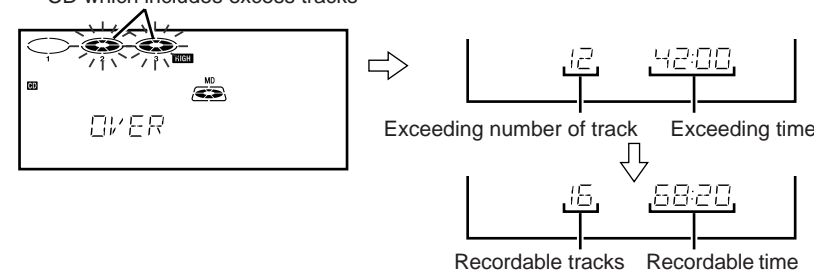
CD		
First track	Second track	Third track
Track A	Track B	Track C

MiniDisc		
First track	Second track	Third track
Track A	Track B	Track C

"OVER" indication in step 6:

If the recording time is longer than the recordable time of the MiniDisc, "OVER" appears. Then, the system displays the following information.

CD which includes excess tracks



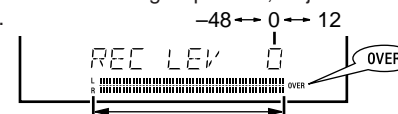
To continue with the recordable tracks only, press the CD ► MD button again. When the recording is finished "EDIT END" will be displayed and the CD and MiniDisc will stop.

- If the first CD track to be recorded is longer than the available MiniDisc recording space, then recording will not be performed.

Adjusting the recording level:

You can adjust the recording level depending on the recording source by watching the level meter. If "OVER" appears, lower the level.

If the source level is too low and the level meter does not go to the right, raise the level. During recording or whilst recording is paused, adjust the recording level using the ◀◀ or ▶▶ button.



Note for high speed recording:

High speed recording is possible only during digital recording.

If you record tracks copyright-protected by the SCMS (see page 35) from a CD-R etc. onto a MiniDisc, "CAN'T COPY" will appear on the display. All the copyright-protected tracks will be skipped automatically and the other tracks will be recorded.

To stop recording:

Press the ■ button.

The CD and MiniDisc will stop.

After use:

Press the ON/STAND-BY button to enter the power stand-by mode.

Note:

If the programmed play mode is set, this recording function is not possible. To cancel the programme, see page 22.

Recording to a MiniDisc from CDs (continued)

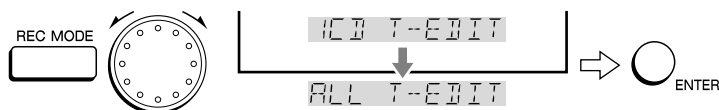
■ Recording the first several tracks of the CDs

Create your own hit collection. For example, you can record the first track of all six CDs in turn.

1 Press the CD button and load the desired CD(s).

2 Load a recordable MiniDisc into the MD compartment. (See page 36.)

3 Press the REC MODE button and turn the jog dial to select "1CD T-EDIT" or "ALL T-EDIT". Within 10 seconds, press the ENTER button.



1CD T-EDIT : Programmes 1 CD (the current CD).
ALL T-EDIT : Programmes all CDs continuously.
(Example: Recording the first track of all CDs.)

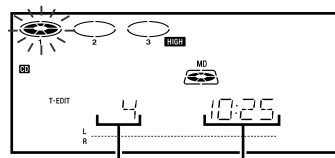
4 Press the TRACK EDIT button repeatedly to select the desired tracks to be recorded.



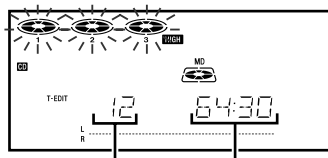
- Wait whilst the system reads the CD.
Then, the total recording time for track editing will appear.

Example) Selected: 1CD T-EDIT

Example) Selected: ALL T-EDIT



Total recording
tracks Total recording
time



Total recording
tracks Total recording
time

- Each time you press the TRACK EDIT button, one track will be added to the total recording tracks.

5 Press the CD ► MD button to start recording.

(Perform step 6 on page 37.)



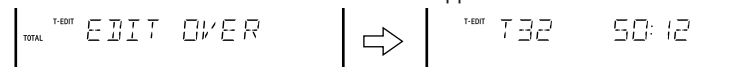
Recording order of track editing:

DISC 1	DISC 2	DISC 3	DISC 6
Track 1	Track 2	Track 1	Track 1
			Track 2

- When the CD reaches the end, recording will stop.

"EDIT OVER" indication in step 4:

If the recording time is longer than the recordable time of the MiniDisc or if the recording tracks reach 32, "EDIT OVER" appears and the system does not accept further editing. Record the tracks selected before "EDIT OVER" appears.



To stop recording:

Press the ■ button.

When you stop the recording, the memory of the selected tracks will be erased.

Note:

If the programmed play mode is set, this recording function is not possible.

To cancel the programme, see page 22.

■ Programmed recording from CDs

Programmed play lets you select the desired discs and tracks.

1 Programme the desired tracks from CD(s). (See page 22.)

2 Load a recordable MiniDisc into the MD compartment. (See page 36.)

3 Press the CD ► MD button to start recording.
(Perform step 6 on page 37.)

- When the CD reaches the end, recording will stop.

To stop recording:

Press the ■ button.

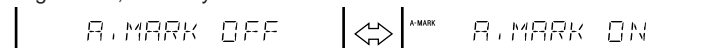
The programmed content will not be erased when the recording is stopped.



Recording to a MiniDisc from a Cassette Tape

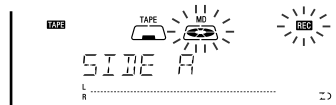
- 1 Press the **TAPE** button and load the cassette. (See page 24.)
- 2 Load a recordable MiniDisc into the MD compartment. (See page 36.)
- 3 Press the **AUTO MARKER** button to select “A.MARK ON” or “A.MARK OFF”.

If you have selected “A.MARK ON”, the auto mark function will be activated and a new track number will be created if the sound stops for 1 second or more. If you have selected “A.MARK OFF”, a recording is performed as a single track, and only one track number is created.



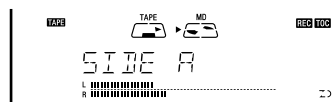
- The auto mark function may not work correctly if you record a tape with much noise.

- 4 Press the **MD REC** button.



- The unit will enter the recording stand-by mode.

- 5 Press the **▶||** button to play back side A, or the **◀** button for side B. Recording will start automatically.



- If the tape or MiniDisc stops, recording will stop.

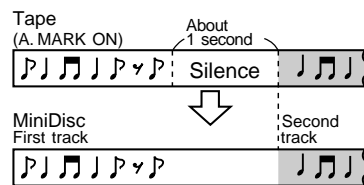
To stop recording:

Press the **■** button.
The MiniDisc and tape will stop.

About track numbers:

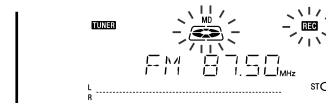
If there is 1 second or more of silence, a new track number is created automatically.

- Due to noise, the track numbers may not be correctly created.
- Without using the auto mark function, the recording can be performed as a single track.



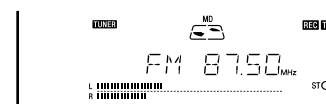
Recording to a MiniDisc from the Radio

- 1 Tune into the desired station. (See page 25.)
- 2 Load a recordable MiniDisc into the MD compartment. (See page 36.)
- 3 Press the **MD REC** button.



- The unit will enter the recording stand-by mode.

- 4 Press the **▶||** button to start recording.



To interrupt recording:

Press the **▶||** button.

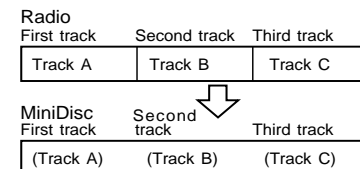
To resume recording from the same point of MiniDisc, press the **▶||** button again.

To stop recording:

Press the **■** button.
The MiniDisc will stop.

About track numbers:

A recording is performed as a single track, and only one number is created.



To mark track numbers whilst recording from a tape or the radio:

Press the **MD REC** button at the desired position during recording to create a new track number. The track counter will be increased by one every time the button is pressed.

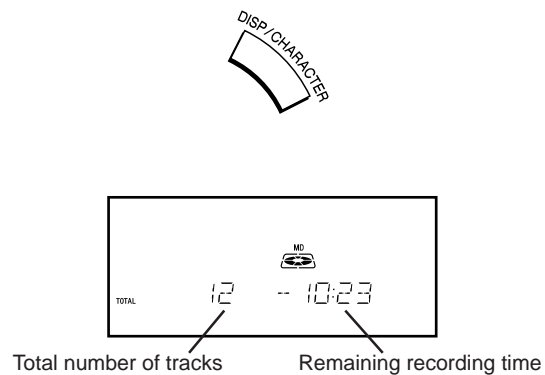


Checking Displays

■ To check the remaining recording time

Whilst in the recording mode, press the DISP/CHARACTER button.

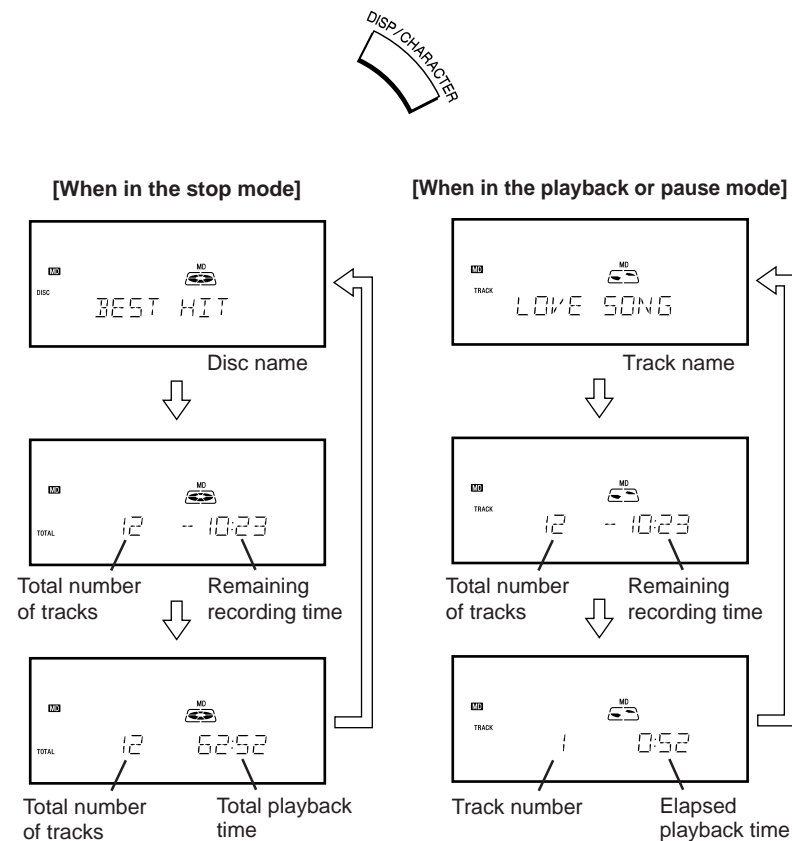
Each time the button is pressed, the display will change as follows.



■ To check the playback time and remaining recording time

Whilst in the stop mode, playback or pause mode, press the DISP/CHARACTER button.

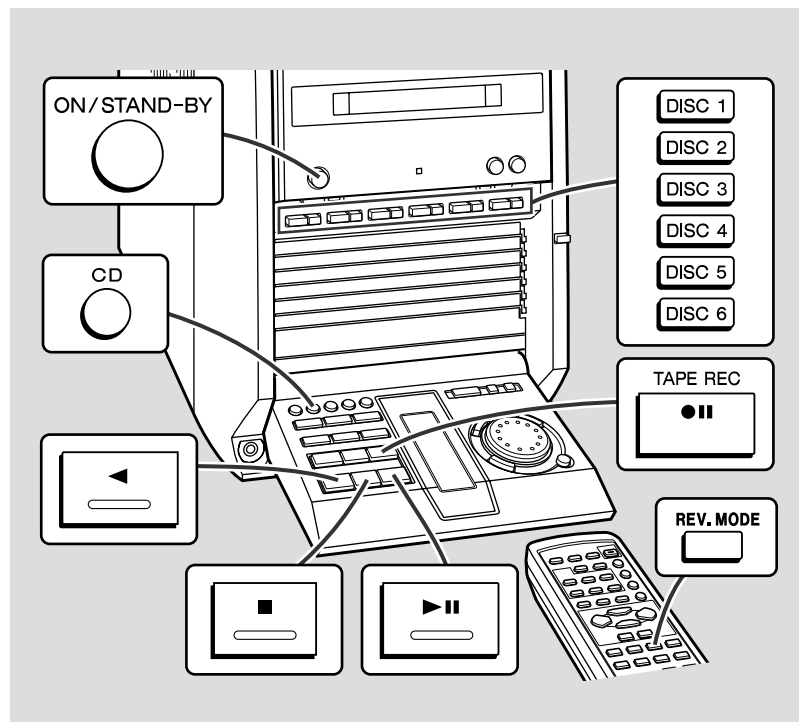
Each time the button is pressed, the display will change as follows.





Recording to a Cassette Tape from a CD

- When recording important selections, make a preliminary test to ensure that the desired material is properly recorded.
- The volume and sound controls can be adjusted with no effect on the recorded signal (Variable Sound Monitor).
- **Do not use metal and CrO₂ tapes for recording.**

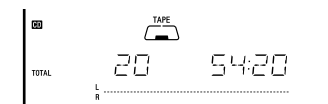


You can record the desired CD using the DISC 1 - DISC 6 buttons.

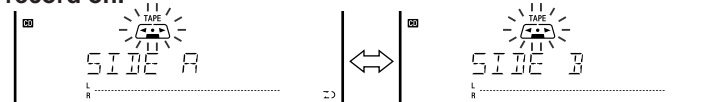
- 1 Press the ON/STAND-BY button to turn the power on.**
- 2 Press the CD button and load the desired disc.**
- 3 Load a cassette into the compartment with side A facing you.**

4 Press the REV. MODE button on the remote control to choose one side or both sides.

- ▶▶ To record on both sides.
- ▶ To record on only one side.

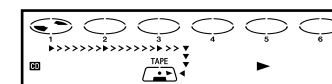


5 Press the TAPE REC button repeatedly to switch to the side you record on.



- Recording will be paused.
- To record on both sides, begin on side A. (If recording is started from side B, the tape will not switch over to side A.)

6 Press one of the DISC 1 - DISC 6 buttons to start recording.



- When the CD reaches the end, recording will stop.

Recording from several CDs continuously:

1. Follow the above steps 1 - 5.
2. Regardless of the tape setting (step 5), press the ▶▶ button to record on side A, or the ▶ button for side B.
 - Recording will start from the lowest numbered disc.

To perform programmed recording:

1. Programme discs and tracks. (See page 22.)
2. Press the TAPE REC button.
3. Regardless of the tape setting (step 5), press the ▶▶ button to record on side A, or the ▶ button for side B.

To stop recording:

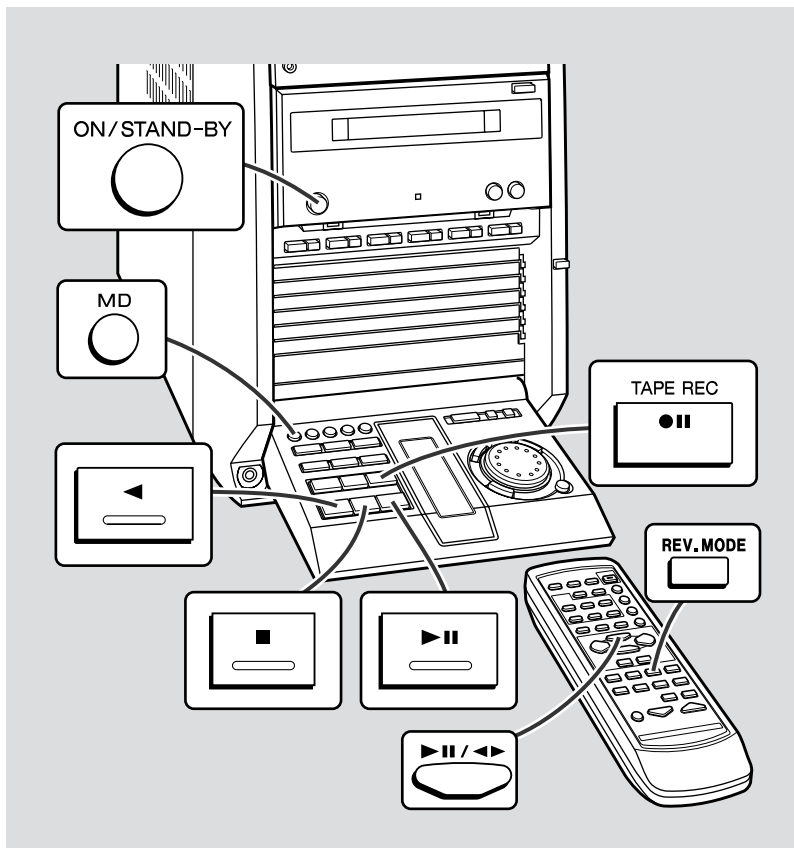
Press the ■ button.
The CD and tape will stop.

Auto restart function:

If the recording side is switched from side A to B during recording, the system will record the interrupted track on side B from its beginning.
The recording will be made without cutting the beginning of the track on side B.



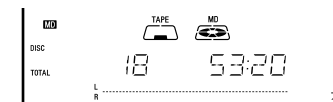
Recording to a Cassette Tape from a MiniDisc



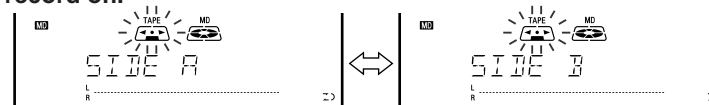
- 1 Press the ON/STAND-BY button to turn the power on.**
- 2 Press the MD button and load a MiniDisc into the MD compartment, label side up. (See page 36.)**
- 3 Load a cassette into the compartment with side A facing you.**

- 4 Press the REV. MODE button on the remote control to choose one side or both sides.**

- ▶▶ To record on both sides.
- ▶ To record on only one side.

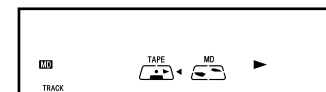


- 5 Press the TAPE REC button repeatedly to switch to the side you record on.**



- Recording will be paused.
- To record on both sides, begin on side A. (If recording is started from side B, the tape will not switch over to side A.)

- 6 Press the ▶|| button to record on side A, or the ◀ button for side B.**



- When you press the ▶||/◀▶ button on the remote control, the system will record on the side specified in step 5.
- When the MiniDisc reaches the end, recording will stop.

To perform programmed recording:

1. Programme discs and tracks. (See page 22.)
2. Press the TAPE REC button.
3. Regardless of the tape setting (step 5), press the ▶|| button to record on side A, or the ◀ button for side B.

To interrupt recording:

Press the TAPE REC button.

To resume recording, press the same recording button you pressed in step 6. Other buttons do not allow resuming.

To stop recording:

Press the ■ button.

The MiniDisc and tape will stop.

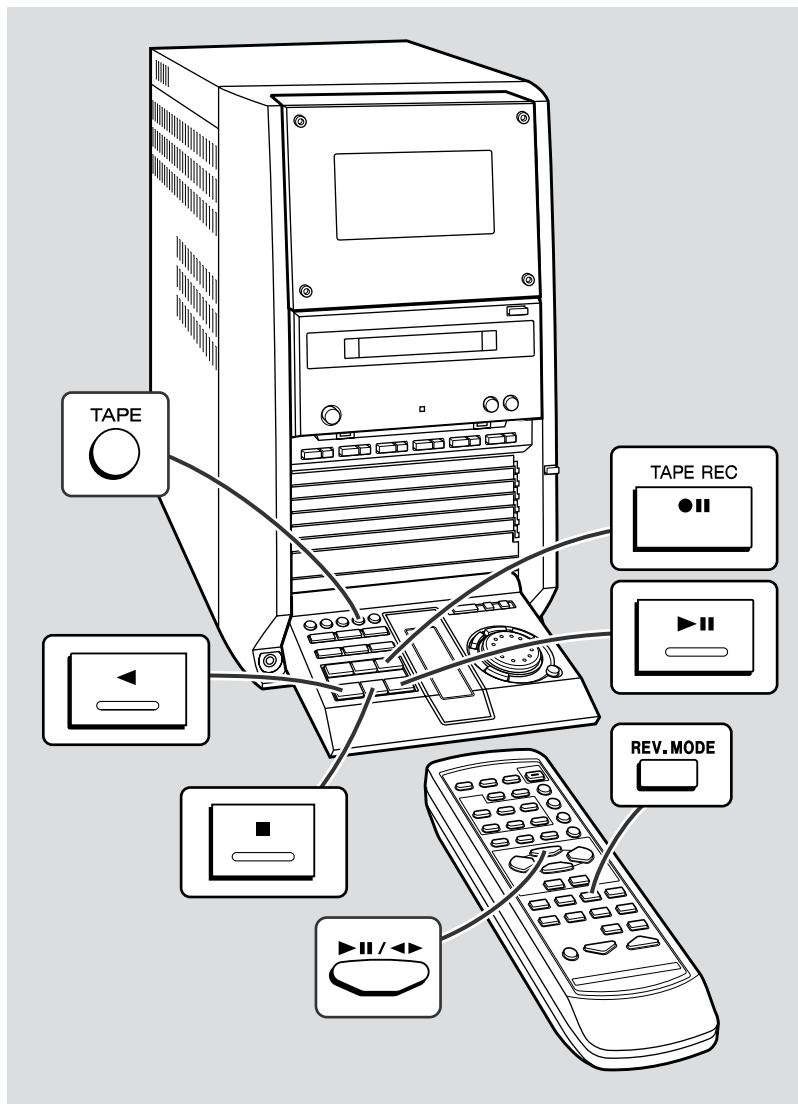
Auto restart function:

If the recording side is switched from side A to B during recording, the system will record the interrupted track on side B from its beginning.

The recording will be made without cutting the beginning of the track on side B.



Recording to a Cassette Tape from the Radio

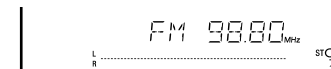


1 Tune in to the desired station. (See page 25.)

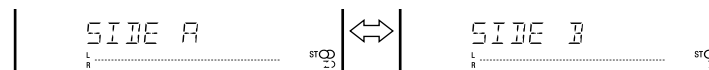
2 Load a cassette into the compartment with side A facing you.

3 Press the REV. MODE button on the remote control to choose one side or both sides.

- ΣD To record on both sides.
- Σ To record on only one side.

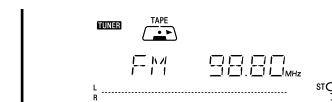


4 Press the TAPE REC button repeatedly to switch to the side you record on.



- Recording will be paused.
- To record on both sides, begin on side A. (If recording is started from side B, the tape will not switch over to side A.)

5 Press the ►|| button to record on side A, or the ◀ button for side B.



- When you press the ►||/◀ button on the remote control, the system will record on the side specified in step 4.

To interrupt recording:

Press the TAPE REC button.

To resume recording, press the same recording button you pressed in step 5. Other buttons do not allow resuming.

To stop recording:

Press the ■ button.

Note:

If you hear a whistling noise whilst recording an AM station, move the AM loop aerial.

■ Erasing recorded tapes

1. Press the TAPE button.
2. Follow steps 2 - 5 in "Recording to a Cassette Tape from the Radio".

Web-site: www.sharp.co.uk/support Help Line: 08705 274277 (office hours)



Titling a MiniDisc

■ Creating disc and track names

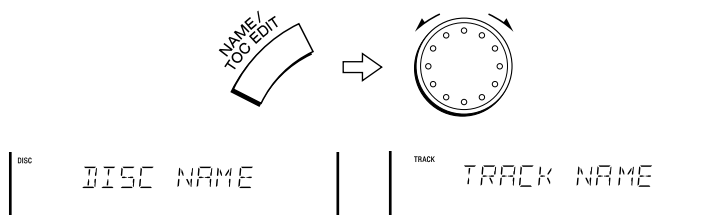
You can give a name to discs and tracks.

One disc name and up to 255 track names can be created per disc (A maximum of 40 characters for the disc and each track name and a total of 1,700 characters can be entered).

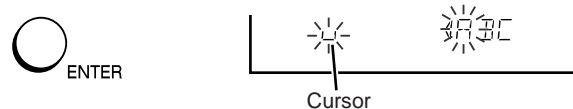
- Playback-only MiniDiscs cannot be edited.

1 Press the MD button and load a MiniDisc. (See page 36.)

Disc name	Track name
Whilst in the stop mode of MiniDisc, press the NAME/TOC EDIT button, and then select "DISC NAME" using the jog dial.	During playback or in the pause mode of MiniDisc, press the NAME/TOC EDIT button to select "TRACK NAME" using the jog dial.

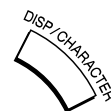


3 Within 10 seconds, press the ENTER button.



- The unit will enter the character input mode.
- To cancel the operation, press the ■ button.

4 Press the DISP/CHARACTER button repeatedly to select the type of characters.



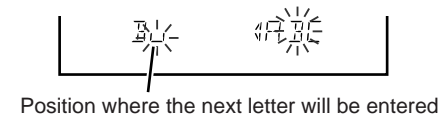
Capital letters ↔ Numbers/Symbols

- Each time the button is pressed, the letter type changes.

5 Select a character to enter using the jog dial.



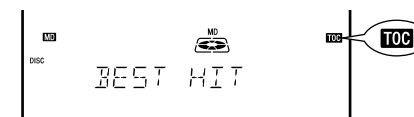
6 Press the ENTER button to enter it.



7 To enter more letters, repeat steps 4 - 6.

- To enter the same character continuously, skip step 4.

8 When the name has been completely entered, press the NAME/TOC EDIT button.





Characters (symbols):

Capital letters	Numbers/symbols
A B C D E F G H I J K L	1 2 3 4 5 6 7 8 9 0 ! "
M N O P Q R S T U V W X	☐ \$ % & ' () * + , - .
Y Z . , / ' ! " ☐ \$ ☐	/ < = > ? @ _ ` ☐

☐ : indicates a space.

To erase disc and track names:

1. Perform steps 1 - 3 in the "Creating disc and track names" section on page 44.
2. Press the DELETE button for 2 seconds or more.
 - "NAME CLEAR" will flash.
3. Press the ENTER button to finish.

To delete a character:

1. Perform steps 1 - 3 in the "Creating disc and track names" section on page 44.
2. Press the ◀ or ▶ button on the unit to flash the character to delete.
3. Press the DELETE button.
4. Press the NAME/TOC EDIT button to finish.

To add a character:

1. Perform steps 1 - 4 in the "Creating disc and track names" section on page 44.
2. Press the ◀ or ▶ button on the unit to flash the character, before which you want to add a new character.
3. Select a character to enter, press the ENTER button.
4. Press the NAME/TOC EDIT button to finish.

To change a character:

Example) To change "BEET" to "BEST"

1. Perform steps 1 - 4 in the "Creating disc and track names" section on page 44.
2. Press the ◀ or ▶ button on the unit to flash the character to change.



3. Press the DELETE button.



4. Select a character to enter using the jog dial, then press the ENTER button.



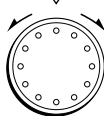
5. Press the NAME/TOC EDIT button to finish.



Editing a Recorded MiniDisc

■ To erase tracks one at a time

- 1 Press the MD button and load a MiniDisc. (See page 36.)
- 2 Whilst in the stop mode, select the track you want to erase using the jog dial. Or start playing the track to be erased, and then press the ►|| button.
- 3 Press the NAME/TOC EDIT button, and within 10 seconds, select "ERASE" using the jog dial.



ERASE

- 4 Within 10 seconds, press the ENTER button.



- To cancel the operation, press the ■ button.



- 5 Press the ENTER button again.

- The track is erased, and the unit is stopped at the beginning of the next track.

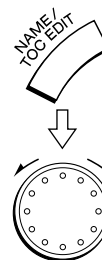
- 6 To erase other tracks, repeat steps 1 - 5.

Notes:

- When a track is erased, the numbers assigned to the tracks following the erased track will be automatically decreased by one.
- When a track is erased, the track name will be erased at the same time.
- This function cannot be used in the random play mode and programmed play mode.

■ To erase all of the tracks at once

- 1 Press the MD button and load a MiniDisc. (See page 36.)
- 2 Whilst in the stop mode, press the NAME/TOC EDIT button, and within 10 seconds, select "ALL ERASE" using the jog dial.

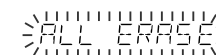


ALL ERASE

- 3 Within 10 seconds, press the ENTER button.



- To cancel the operation, press the ■ button.



- 4 Press the ENTER button again.

BLANK DISC

- All of the track numbers and track names will be erased.

Note:

This function cannot be used in the random play mode and programmed play mode.

Caution:

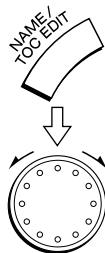
Once a track has been erased, it can not be recovered.

Check the track number before erasing it.



■ To move a track

- 1 Press the MD button and load a MiniDisc. (See page 36.)
- 2 Whilst in the stop mode, select the track you want to move using the jog dial. Or start playing the track to be moved, and then press the ►|| button.
- 3 Press the NAME/TOC EDIT button, and within 10 seconds, select “MOVE” using the jog dial.

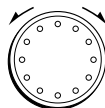


MOVE

- 4 Within 10 seconds, press the ENTER button.



- 5 Select the new track position using the jog dial.



● To cancel the operation, press the ■ button.



- 6 Press the ENTER button again.

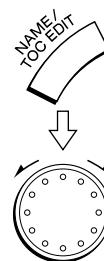
● The track is moved, and the unit is stopped at the beginning of the new track selected in step 5.

Notes:

- When a track has been moved, the other tracks which are affected will be assigned new track numbers automatically.
- This function cannot be used in the random play mode and programmed play mode.

■ To divide a track

- 1 Press the MD button and load a MiniDisc. (See page 36.)
- 2 Play the track which you want to divide into two, and press the ►|| button at the point where you want to divide the track.
- 3 Press the NAME/TOC EDIT button, and within 10 seconds, select “DIVIDE” using the jog dial.



DIVIDE

- 4 Within 10 seconds, press the ENTER button.



● To cancel the operation, press the ■ button.

- 5 Press the ENTER button again.

- The track is divided, and the unit is stopped at the beginning of the second of the two tracks.
- The numbers of the tracks which come after the divided track are automatically increased by one.

Notes:

- The two new tracks will have the same name. However, in the TOC FULL condition, the second track may not be named.
- Each disc can hold up to 255 tracks. However, even if the number of assigned tracks has not reached 254, it might not be possible to make any further divisions of tracks.
- This function cannot be used in the random play mode and programmed play mode.

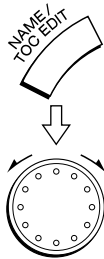
Web-site: www.sharp.co.uk/support Help Line: 08705 274277 (office hours)



Editing a Recorded MiniDisc (continued)

■ To combine tracks

- 1 Press the MD button and load a MiniDisc. (See page 36.)
- 2 Whilst in the stop mode, select the second of the two adjacent tracks you want to combine using the jog dial. Or start playing the second of the two tracks you want to combine, and then press the ►|| button.
- 3 Press the NAME/TOC EDIT button, and within 10 seconds, select "COMBINE" using the jog dial.



COMBINE

- 4 Within 10 seconds, press the ENTER button.



- To cancel the operation, press the ■ button.

- 5 Press the ENTER button again.

- The two tracks are combined, and the unit is stopped at the beginning of the combined track.
- The numbers assigned to the tracks following the combined track are automatically decreased by one.

Notes:

- First, put the two tracks next to each other in the order you want using the MOVE function. Then combine them using the COMBINE function.
- The first track name will be used. However, when the first track does not have a name, the second track name will be used.
- This function cannot be used in the random play mode and programmed play mode.

In the following cases, tracks may not be combined.

- Digital recorded track and analogue recorded track.
- Long play recorded track and stereo recorded track.
- Tracks whose recording time is less than 12 seconds.



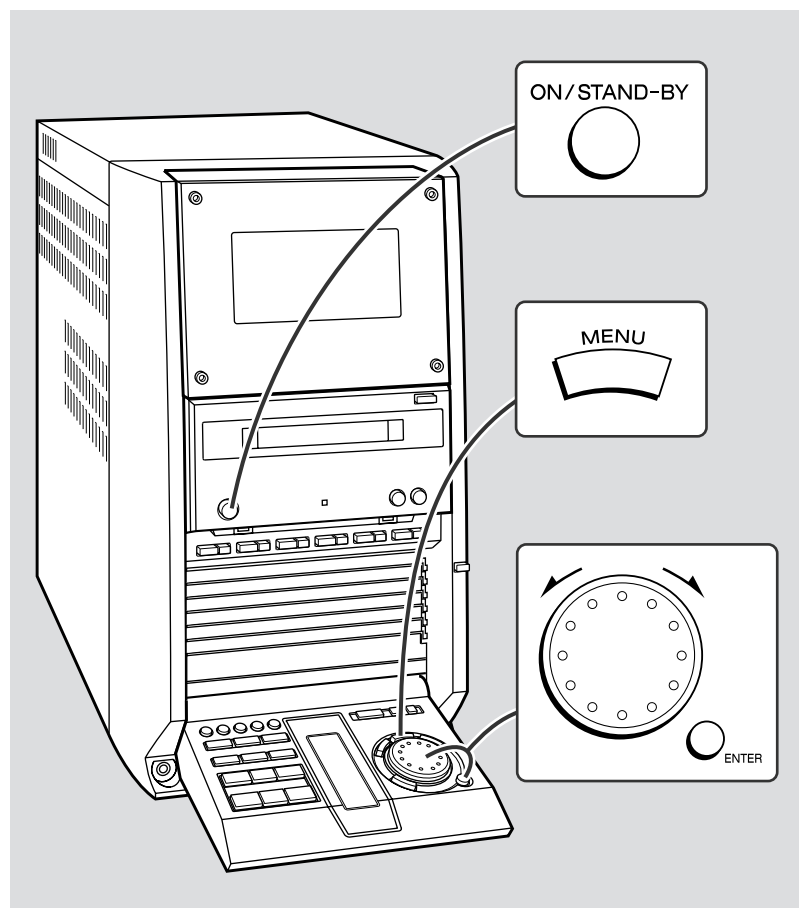
Timer and Sleep Operation

Timer playback:

The unit turns on and plays the desired source (CD, MD, tuner, tape) at the preset time. At the end time, the unit enters the power stand-by mode automatically.

Timer recording:

The unit turns on and starts recording from the tuner at the preset time. At the end time, the unit enters the power stand-by mode automatically.



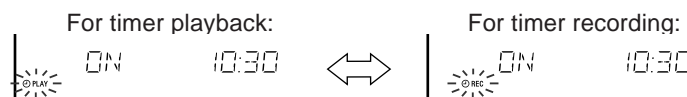
■ Timer playback/Timer recording

Before setting the timer:

Whilst the power is in the stand-by mode, press the DISPLAY button on the remote control to check that the clock is on time.



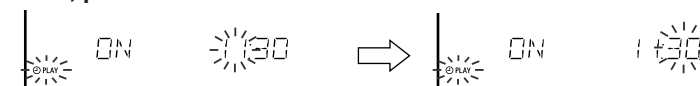
- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the MENU button.
- 3 Turn the jog dial to select "TIMER PLAY" or "TIMER REC" mode and within 10 seconds, press the ENTER button.



- 4 "⊙ PLAY" or "⊙ REC" will flash for 5 seconds.
Press the ENTER button during the flash.



- 5 Turn the jog dial to specify the hour to start and within 10 seconds, press the ENTER button.

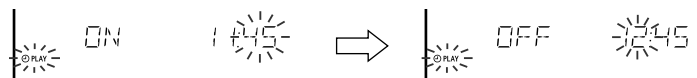


● The illustrations show the timer playback setting.

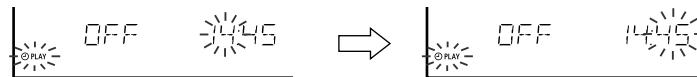
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Timer and Sleep Operation (continued)

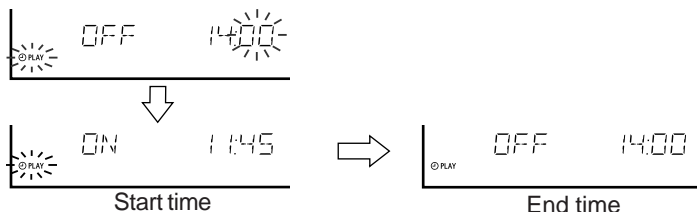
- 6** Turn the jog dial to specify the minute and within 10 seconds, press the ENTER button.



- 7** Turn the jog dial to specify the hour to stop and within 10 seconds, press the ENTER button.

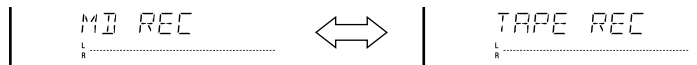


- 8** Turn the jog dial to specify the minute and within 10 seconds, press the ENTER button.



Timer play: Go to step 10.
Timer recording: Go to step 9.

- 9** For timer recording, turn the jog dial to select "MD REC" or "TAPE REC" and within 10 seconds, press the ENTER button.



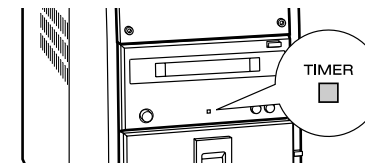
- 10** Adjust the volume using the VOLUME buttons.

- Do not turn the volume up too high.

- 11** Press the CD, MD, TUNER (BAND) or TAPE button to select the desired function.

To select the timer playback source : CD, MD, TUNER (BAND) or TAPE.
To select the timer recording source : TUNER (BAND).

- 12** Press the ON/STAND-BY button to enter the timer stand-by mode.



To cancel the timer playback/timer recording:

- Press the ON/STAND-BY button to turn the power on.
- Press the MENU button.
- Turn the jog dial to select "TIMER OFF" and then press the ENTER button.

To check the setting time:

- Press the ON/STAND-BY button to turn the power on.
- Press the MENU button.
- Turn the jog dial to select "TIMER PLAY" or "TIMER REC" and then press the ENTER button.
- Press the ON/STAND-BY button to enter the timer stand-by mode.

- 13** When the preset time is reached, playback or recording will start.

- The volume will increase gradually until it reaches the volume you were listening to before your system enters the timer stand-by mode.

- 14** When the timer end time is reached, the system will enter the power stand-by mode automatically.

- If you press the CD ► MD, TRACK EDIT or MENU button during timer operation, the timer mode will be cancelled and playback or recording will last even when the end time is reached.

Notes:

- The system will be turned on 15 seconds (no operation can be accepted during that time.) before the timer playback and recording preset time to prepare for them. Actual playback and recording will start from the set time.
- When performing timer playback or recording using another unit connected to the AUX IN or DIGITAL IN sockets, press the AUX button to select "AUX" or "AUX OPT" in step 11. At this time, only this stereo system will be turned on or enter the power stand-by mode automatically. (Another unit will not be turned on or turned off.)

To change the setting time:

Perform "Timer playback/Timer recording" from the beginning.



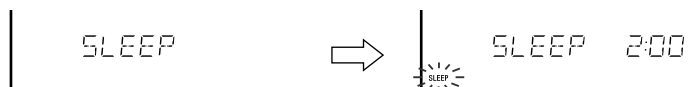
■ Sleep operation

The radio, CDs, MiniDisc and cassette tape can all be turned off automatically.

1 Play back the desired sound source.

2 Press the MENU button.

3 Turn the jog dial to select "SLEEP".
Then press the ENTER button.



To change the sleep time:

Whilst the sleep time is displayed, turn the jog dial.
(Maximum: 2 hours - Minimum: 30 minutes)

4 Press the ENTER button.

5 Your system will enter the power stand-by mode automatically after the preset time has elapsed.

- The volume will be turned down when the sleep operation finishes.

Note:

Once the sleep time is set, it will remain unchanged until the setting is changed.

To cancel the sleep operation:

Press the ON/STAND-BY button whilst sleep operation is performed.

To confirm the remaining sleep time:

Perform the above steps 2 - 3.

This time you can also change the sleep time.

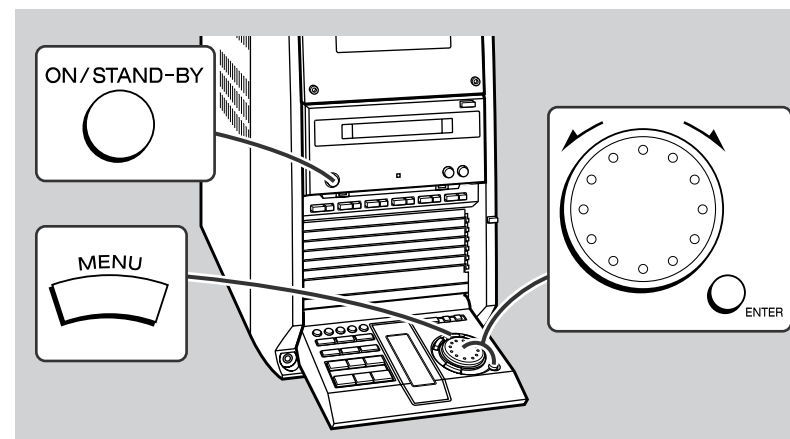
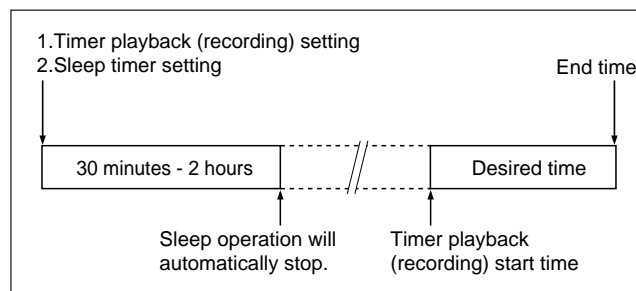
■ To use timer and sleep operation together

Example: To fall asleep and wake to the same radio station

You can play back the same source only (the function cannot be switched).

1 Set the desired playback or recording time (steps 1 - 9, pages 49 - 50).

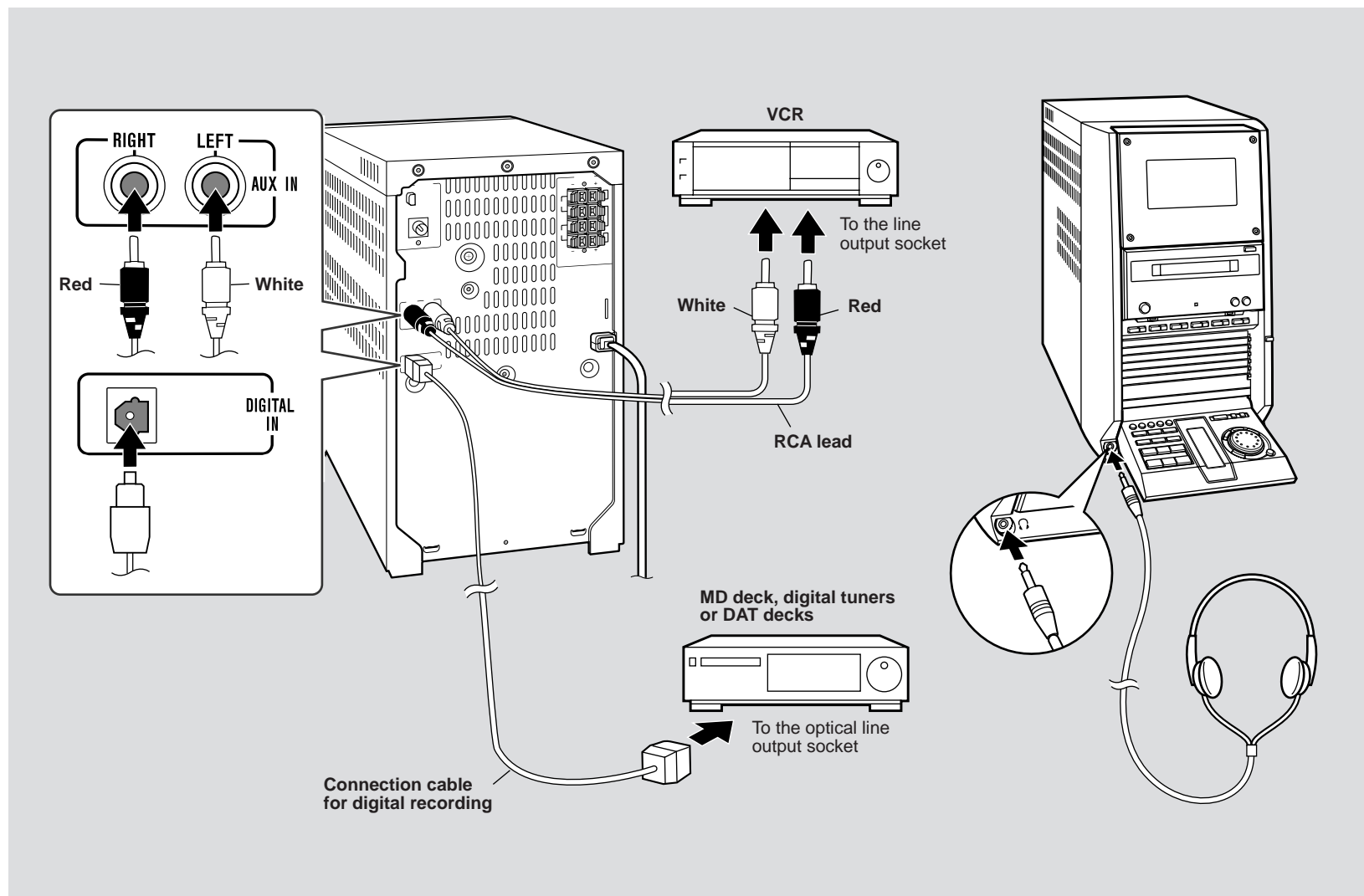
2 Whilst playing the desired source, set the sleep time (see left, steps 1 - 4).





Enhancing Your Stereo System

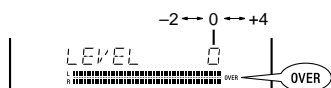
The connection lead is not included. Purchase a commercially available lead as shown below.





■ Listening to the playback sounds from the connected equipment

1. Use a connection cable to connect the unit to the AUX IN or DIGITAL IN socket.
2. Press the ON/STAND-BY button to turn the power on.
3. Press the AUX button to select "AUX" or "AUX OPT".
4. Play the connected equipment.
5. If you have selected "AUX", adjust the input level using the ◀◀ or ▶▶ button.



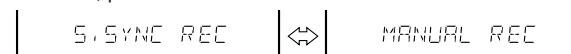
- The "OVER" indicator should not light at the maximum level.
- You cannot adjust the input level of the equipment connected to the DIGITAL IN socket.

■ Recording on a tape

1. Use a connection cable to connect the unit to the AUX IN or DIGITAL IN socket.
2. Press the ON/STAND-BY button to turn the power on.
3. Insert a cassette in the compartment.
4. Press the AUX button to select "AUX" or "AUX OPT".
5. Press the TAPE REC button.
6. Play the connected equipment.
7. If you have selected "AUX", adjust the input level using the ◀◀ or ▶▶ button.
 - You cannot adjust the input level of the equipment connected to the DIGITAL IN socket.
8. Press the ▶|| or ◀ button to start recording.

■ Recording on a MiniDisc

1. Use a connection cable to connect the unit to the AUX IN or DIGITAL IN socket.
2. Press the ON/STAND-BY button to turn the power on.
3. Press the AUX button to select "AUX" or "AUX OPT".
4. Load a recordable MiniDisc into the MD compartment.
5. Press the REC MODE button and select "S.SYNC REC" or "MANUAL REC" using the jog dial. Then, press the ENTER button.



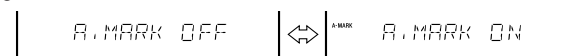
S.SYNC REC: Recording starts automatically with sound input.

MANUAL REC: After pressing the ▶|| button, recording will start.

6. Press the MD REC button.
7. Press the ▶|| button to start recording.
 - When "S.SYNC REC" is selected, pressing the ▶|| button is unnecessary. Then, play the connected equipment.

About track numbers:

- If you have selected "S.SYNC REC", the auto mark function will be activated automatically.
- If you have selected "MANUAL REC", you can select the auto mark function by pressing the AUTO MARKER button.



To mark track numbers whilst recording from the connected equipment:

Press the MD REC button during recording. The track number will be marked and the displayed number will be increased by one.

■ Headphones

- Before plugging in or unplugging the headphones, reduce the volume.
- Be sure your headphones have a 3.5 mm (1/8") diameter plug and are between 16 ohms and 50 ohms impedance. The recommended impedance is 32 ohms.
- Plugging in the headphones disconnects the speakers automatically. Adjust the volume using the VOLUME buttons.



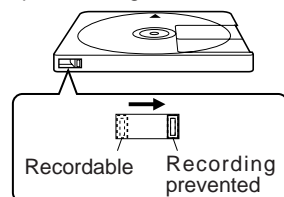
What is a MiniDisc?

The disc is stored in a cartridge. You can handle it easily without worrying about dust, fingerprints, etc. However, dust entering the opening of the cartridge, dirt on the cartridge, warping, etc. may cause malfunctions. Please note the following.

■ To prevent recorded MiniDiscs from being erased accidentally

Slide the accidental erase prevention tab, located on the side of the MiniDisc, in the direction indicated by the arrow.

- The MiniDisc will then be protected against accidental erasure.



To add a recording to such a MiniDisc, slide the accidental erase prevention tab back to its original position.

■ Helpful tip when attaching a label

When attaching a label to a MiniDisc cartridge, be sure to note the following. If the label is not attached properly, the MiniDisc may jam inside the unit and it may not be possible to remove it.

- If the label peels off or partially lifts away, replace it with a new one.
- Do not put a new label on top of an existing one.
- Attach the label only in the specified location.

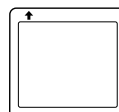


■ Types of discs

There are two types of discs: playback-only and recordable types.

● Playback-only MiniDisc:

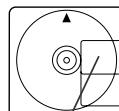
This type of MiniDisc is used for commercially available prerecorded music. This is the same kind of optical disc as CDs. Playback is performed using an optical pickup. (Recording and editing are not possible.)



A Shutter will be used on only one side (back).

● Recordable MiniDisc:

This is a "raw disc" on which recording can be performed. A magneto optical disc is used. Recordings are made using a laser and magnetic field. Repeated recording is possible.



Shutters will be used on both sides.

MiniDisc System Limitations

Even if the maximum recording time of a MiniDisc has not been reached, "TOC FULL" may be displayed.	In the MD system, the delimiter of the recording area on a MiniDisc is programmed in a TOC. If partial erasing, recording and editing are repeated several times, TOC information will fill up, even though the number of tracks has not reached the limit (255 tracks), and further recording will be impossible. (If you use the all erase function, this MiniDisc can be used from the beginning.)
Even if the maximum recording time of a MiniDisc has not been reached, "DISC FULL" may be displayed.	If there is any flaw on the MiniDisc, that part is automatically excluded from the space available for recording. Therefore, the recording time becomes shorter.
Even if several short tracks are erased, the remaining recording time may not show an increase.	When the remaining recording time of a disc is displayed, short tracks less than 12 seconds long may not be included in the total.
Two tracks may not be combined in editing.	For MiniDiscs on which repeated recording and editing operations were performed, the COMBINE function may not work. A track recorded from a CD (digital recording) and a track recorded from a radio or other equipment (analogue recording) cannot be combined.
The total of the recorded time and time remaining on a disc may not add up to the maximum possible recording time.	A cluster (about 2 seconds) is normally the minimum unit of recording. So, even if a track is less than 2 seconds long, it will use about 2 seconds of space on the disc. Therefore, the time actually available for recording may be less than the remaining time displayed. If there are scratches on discs, those sections will be automatically avoided (no recording will be placed in those sections). Therefore, the recording time will be reduced.
If recorded tracks are fast reversed or fast forwarded, the sound may skip.	A MiniDisc which has been recorded or edited repeatedly may skip during fast reverse or fast forward.



Error Messages

When an error message is displayed, proceed as follows:

Error messages	Meaning	Remedy
BLANK DISC	● Nothing is recorded. (Neither music nor disc name is recorded.)	● Replace it with another disc.
CAN'T COPY	● You tried to record from a copy prohibited CD.	● Replace the CD.
CAN'T EDIT	● A track cannot be edited.	● Change the stop position of the track and then try editing it.
CAN'T READ * (* :Number or symbol)	● The disc is damaged. ● TOC information cannot be read. ● MiniDisc not specified.	● Replace it with another disc. ● Erase the disc and try recording again.
CAN'T REC	● Recording cannot be performed correctly due to vibration or shock in the unit.	● Re-record or replace the MiniDisc.
CAN'T WRITE	● The TOC information could not be created properly due to a mechanical shock or to scratches on the disc.	● Set this unit to the stand-by mode and try to write the TOC again. (Remove any source of shock or vibration whilst writing.)
DISC FULL	● The disc is out of recording space.	● Replace the disc with another recordable disc.
E-CD 20	● The CD tray is not working properly.	● Set this unit to the stand-by mode and turn the power on again.
E-MD ** (* :Number or symbol)	● A MiniDisc is not working properly.	● Set this unit to the stand-by mode and turn the power on again.
EDIT OVER	● You chose 32 or more tracks for track editing.	● Decrease the number of tracks.
MD NO DISC CD NO DISC	● A MiniDisc has not been loaded. ● The MiniDisc data cannot be read. ● A CD has not been loaded. ● The CD data cannot be read.	● Load a MiniDisc. ● Reload the MiniDisc. ● Load a CD. ● Reload the CD.

Error messages	Meaning	Remedy
NAME FULL	● The number of characters for the disc name or track name exceeds 40.	● Shorten the disc or track name.
NO SIGNAL	● Poor connection of the digital cable. ● No output signal comes out from the connected unit to playback.	● Connect the digital cable securely. ● Playback with the connected unit.
NOT AUDIO	● The data recorded on this disc is not audio data.	● Select another track. ● Replace the disc.
OVER	● There is no space to make CD editing on the disc.	● Replace it with a disc that has enough time to record.
PLAY MD	● You tried to record on a playback-only disc.	● Replace it with another recordable disc.
PROTECTED	● The disc is write protected.	● Move the write protection tab back to its original position.
TEMP OVER	● The temperature is too high.	● Set this unit to the stand-by mode and wait for a whilst.
TOC FORM ** (* :Number or symbol)	● TOC information recorded on the MD does not match the MiniDisc specifications or it cannot be read.	● Replace it with another disc. ● Erase the disc and try recording again.
TOC FULL	● There is no space left for recording track numbers. ● There is no space left for recording character information.	● Replace it with another recordable disc. ● Erase the needless characters.
? DISC	● The data contains an error. ● MiniDisc not specified.	● Replace it with another disc.



Troubleshooting Chart

Many potential "problems" can be resolved by the owner without calling a service technician. If something is wrong with this product, check the following before calling your authorised SHARP dealer or service centre.

■ General

Symptom	Possible cause
● The clock is not on time.	● Did a power failure occur? Reset the clock. (Refer to page 17.)
● When a button is pressed, the unit does not respond.	● Set this unit to the power stand-by mode and then turn it back on. ● If the unit still malfunctions, reset it. (Refer to page 57.)
● No sound is heard.	● Is the volume level set to "0"? ● Are the headphones connected? ● Are the speaker wires disconnected?

■ CD player

Symptom	Possible cause
● Playback does not start. ● Playback stops in the middle or is not performed properly.	● The disc is loaded up-side down. ● The disc does not satisfy the standards. ● The disc is distorted or scratched.
● Playback sounds are skipped, or stopped in the middle of a track.	● Is the unit located near excessive vibrations? ● The disc is very dirty. ● Has condensation formed inside the unit?

■ MiniDisc

Symptom	Possible cause
● A recording cannot be made.	● Is the MiniDisc protected against accidental erasure? ● Did you try to make recording on a playback-only MiniDisc? ● Can you see the "DISC FULL" or "TOC FULL" message in the display?
● Even though a disc has been loaded, "NO DISC" or "CAN'T READ" is displayed. ● Playback sounds are skipped.	● The disc is very dirty. ● Is the unit located near excessive vibrations? ● Has condensation formed inside the unit?

■ Cassette deck

Symptom	Possible cause
● Cannot record.	● Is the erase-protection tab removed?
● Cannot record tracks with proper sound quality. ● Cannot erase completely.	● Is it a normal tape? (You cannot record on a metal or CrO ₂ tape.)
● Sound skipping. ● Cannot hear treble. ● Sound fluctuation.	● Is there any slack? Is the tape stretched? ● Are the capstans, pinch rollers, or heads dirty?
● Cannot remove the tape.	● If a power failure occurs during playback, the heads remain engaged with the tape. Do not open the compartment forcibly. Wait until electricity resumes.

■ Tuner

Symptom	Possible cause
● Radio makes unusual noise consecutively.	● The stereo system is placed near the TV or computer. ● FM/AM loop aerial is not placed properly. Move the AC power lead away from the aerial if located near.

■ Remote control

Symptom	Possible cause
● The remote control does not operate.	● Is the AC power lead of the stereo system plugged in? ● The battery polarity is not correct. ● The batteries are dead. ● Incorrect distance or angle. ● Does the remote control sensor receive strong light?

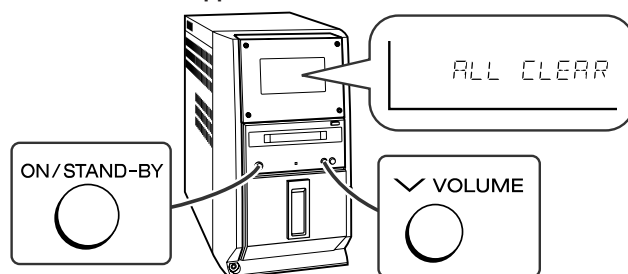


■ If trouble occurs (reset)

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

1. Press the ON/STAND-BY button to enter the power stand-by mode.
2. Whilst pressing down the VOLUME ∇ button, press the ON/STAND-BY button until "ALL CLEAR" appears.



Caution:

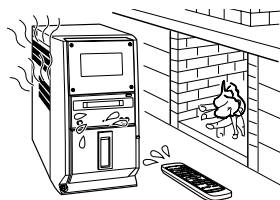
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD or MiniDisc programme.

■ Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, tape heads, etc.) or on the transmitter on the remote control.

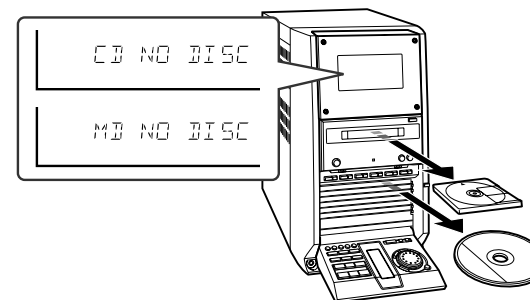
Condensation can cause the unit to malfunction.

If this happens, leave the power on with no disc (or cassette) in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter with a soft cloth before operating the unit.



■ Before transporting the unit

Remove all CDs and the MiniDisc from the unit. Your unit checks whether there are any discs inside the unit. "CD NO DISC" and "MD NO DISC" appear if no disc is left. Then, set the unit to the power stand-by mode. Carrying the unit with discs left inside can damage it.

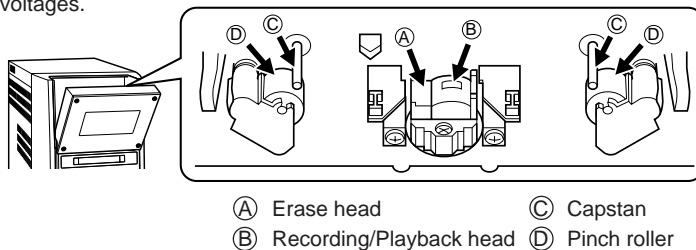




Maintenance

■ Cleaning the tape-handling parts

- Dirty heads, capstans or pinch rollers can cause poor sound and tape jams. Clean these parts with a cotton swab moistened with commercial head/pinch roller cleaner or isopropyl alcohol.
- When cleaning the heads, pinch rollers, etc., unplug the unit which contains high voltages.



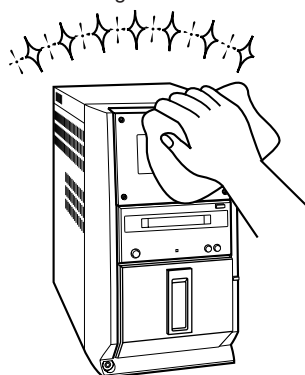
- After long use, the deck's heads and capstans may become magnetised, causing poor sound. Demagnetise these parts once every 30 hours of playing/recording time by using a commercial tape head demagnetiser. Read the demagnetiser's instructions carefully before use.

■ Cleaning the cabinet

Periodically wipe the cabinet with a soft cloth and a diluted soap solution, then with a dry cloth.

Caution:

Do not use chemically treated cleaning cloths or other chemicals.



Specifications

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

■ General

Power source	AC 230 V, 50 Hz
Power consumption	Power on: 180 W Power stand-by: 0.6 W (*)
Dimensions	Width: 200 mm (7-7/8") Height: 352 mm (13-7/8") Depth: 377 mm (14-7/8")
Weight	10.3 kg (22.7 lbs.)

(*) This power consumption value is obtained when the demonstration mode is cancelled in the power stand-by mode. Refer to page 15 to cancel the demonstration mode.

■ Amplifier

Output power	RMS: 200 W (100 W + 100 W) (10 % T.H.D.) Main speaker (woofer and tweeter); 80 W (40 W + 40 W) Subwoofer; 120 W (60 W + 60 W) RMS: 184 W (92 W + 92 W) (0.9 % T.H.D.) Main speaker (woofer and tweeter); 74 W (37 W + 37 W) Subwoofer; 110 W (55 W + 55 W)
Output terminals	Speakers: 6 ohms Headphones: 16-50 ohms (recommended; 32 ohms)
Input terminals	Auxiliary: 500 mV/47 kohms Digital input (optical)



■ CD player

Type	6-disc multi-play compact disc changer player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	1-bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

■ MiniDisc

Type	MiniDisc recorder
Signal readout	Non-contact, 3-beam semiconductor laser pickup
Rotation speed	400 - 900 rpm CLV, Approx.
Error correction	ACIRC (Advanced Cross Interleave Reed-Solomon Code)
Quantization	20-bit linear (A/D converter)
Coding	ATRAC (Adaptive Transform Acoustic Coding)
Sampling frequency	44.1 kHz
Recording method	Magnetic modulation overwrite method
Frequency response	20 - 20,000 Hz
D/A converter	1-bit D/A converter
Wow and flutter	Unmeasurable (less than 0.001% W. peak)
Signal/noise ratio	95 dB (1 kHz)
Dynamic range	90 dB (1 kHz)
Audio channel	Stereo: 2 channels Monaural: 1 channel (playback only) (long-time recording mode)

■ Cassette deck

Frequency response	50-14,000 Hz (Normal tape)
Signal/noise ratio	50 dB (recording/playback)
Wow and flutter	0.3 % (WRMS)

■ Tuner

Frequency range	FM: 87.50-108.00 MHz AM: 522-1,620 kHz
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■ Speaker

Type	3-way type speaker system 5 cm (2") Tweeter 13 cm (5-1/4") Woofer 13 cm (5-1/4") Subwoofer
Maximum input power (Total)	200 W
Rated input power (Total)	100 W
Impedance	6 ohms
Dimensions	Width: 210 mm (8-1/4") Height: 392 mm (15-7/16") Depth: 345 mm (13-9/16")
Weight	5.1 kg (11.2 lbs.)/each



TERMS OF GUARANTEE

Sharp Electronics (UK) Ltd. ("Sharp") guarantees to provide for the repair, or at its option the replacement, of this product subject to the conditions listed below:-

1. This guarantee shall only apply to faults which are due to inferior workmanship or materials. It does not cover faults or damage caused by accident, misuse, fair wear and tear, neglect, tampering with the product, or repair other than by a Service Facility appointed by Sharp.
2. As this product is intended for private domestic use only, the guarantee will not apply if the product is used in the course of a business, trade or profession.
3. To benefit from this guarantee, any fault which occurs must be notified to Sharp, or its appointed Service Facility within one year from the date this product was purchased. Proof of purchase must be provided.
4. The guarantee does not cover carriage costs, jewelled styli, audio tapes, compact discs or batteries.
5. In the unlikely event of this product requiring repair, please contact the supplier from whom it was purchased. Where this is not possible, please contact the Sharp Customer Information Centre on the telephone number given below.
6. No person has any authority to vary the terms or conditions of this guarantee.
7. This guarantee is offered as an additional benefit to your statutory rights, and does not affect these rights in any way.

If you have any difficulty operating this product, or would like information on other Sharp products, please telephone the Sharp Customer Information Centre on the number given below.

Sharp Customer Information Centre - Telephone 08705 274277

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